

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

In the Matter of:)	
)	
)	U.S. EPA Docket No.
Chevron U.S.A. Inc.,)	RCRA-7003-09-2000-0002
Exxon Mobil Corporation,)	
Atlantic Richfield Company,)	
Conoco, Inc., Kayo Oil Company,)	
Douglas Oil Company of)	
California, UNOCAL Corporation,)	
Mobil Oil Corporation,)	
Tosco Corporation,)	
Thrifty Oil Company)	
Best California Gas Ltd.,)	
Kazuho Nishida,)	
and HLW Corporation,)	
)	
)	
Respondents.)	
_____)	

UNILATERAL ADMINISTRATIVE ORDER
FOR PARTICIPATION AND COOPERATION IN WATER REPLACEMENT

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INTRODUCTION

This Order requires Respondents, Chevron USA Inc. ("Chevron"), Exxon Mobil Corporation ("Exxon"), Atlantic Richfield Company (d.b.a. ARCO) ("Arco"), Conoco, Inc. ("Conoco"), Kayo Oil Company ("Kayo"), Douglas Oil Company of California ("Douglas"), Unocal Corporation ("Unocal"), Mobil Oil Corporation ("Mobil"), Tosco Corporation ("Tosco"), Thrifty Oil Company ("Thrifty"), Best California Gas, Ltd. ("Best"), Kazuho Nishida ("Nishida"), and HLW Corporation ("HLW") (collectively "Respondents"), to participate and cooperate with parties named in EPA's Order dated September 22, 1999 (Docket No. RCRA 7003-09-99-0007)(hereinafter "the Shell Order") in providing Water Replacement to the City of Santa Monica ("City") and the Southern California Water Company ("SCWC")(collectively "the Impacted Parties") for the period beginning on May 7, 2000 and continuing through January 6, 2005. This provision of Water Replacement is necessitated by the presence of the gasoline additive methyl tertiary-butyl ether ("MTBE") and other gasoline constituents in the Charnock Sub-Basin, formerly a drinking water supply for the Impacted Parties. Respondents have responsibility for releases from gasoline service stations that have discharged MTBE and other gasoline constituents adversely affecting the Charnock Sub-Basin and its beneficial use as a drinking water supply.

I. JURISDICTION AND PROCEDURE

1. This Administrative Order is issued to Respondents Chevron, Exxon, Arco, Conoco, Kayo, Douglas, Unocal, Mobil, Tosco, Thrifty, Best, Nishida and HLW by the United States Environmental Protection Agency ("EPA") pursuant to the authority vested in the Administrator of EPA by Section 7003 of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. Section 6901 et seq. ("RCRA"), which authority has been duly delegated to the Regional Administrator of EPA, Region IX, and redelegated to the Director of the Waste Management Division, Region IX. Notice of this Order has been provided to the State of California ("State"), as may be required by Section 7003(a) of RCRA, 42 U.S.C. Section 6973(a).

II. PARTIES BOUND

1. This Order shall apply to and be binding upon the Respondents identified in paragraph I.1, above, and their directors, officers, employees, agents, successors and assigns and upon all other persons and entities who are under the direct or indirect control of Respondents including, but not limited to, any contractors or independent agents or consultants acting under or for each of the Respondents in performing their obligations under this Order, until such time as the Work to be performed under Section VI has been completed.
2. No change in the ownership or legal status of Respondents, or of any property to which access is required for performance of the Work, will in any way alter Respondents' obligations and responsibilities under this Order.
3. Respondents shall provide a copy of this Order and all other documents approved under or pursuant to this Order which are relevant to conducting the Work to each contractor, sub-contractor, laboratory, or consultant retained to perform any Work under this Order, within five (5) days after the Effective Date of this Order or on the date such services are retained, whichever date occurs later. Respondents shall also provide a copy of this Order to each person representing any Respondent with respect to the Work and shall condition all contracts and subcontracts entered into for that purpose upon performance of the Work in conformity with the terms of this Order. Notwithstanding the terms of any contract, Respondents, and each of them, are responsible for compliance with this Order and for ensuring that their contractors, subcontractors and agents comply with this Order, and perform all Work in accordance with this Order.
4. At all times after service of this Order, Respondents shall provide a copy of this Order to any prospective owners or successors before a controlling interest in Respondents' assets, property rights or stock are transferred to the prospective owner or successor. Respondents shall notify EPA at least seven (7) days prior to such transfer.

III. FINDINGS OF FACT

A. Discovery of MTBE Contamination at Santa Monica's Charnock Wellfield and Shutdown of the Charnock Wellfields

1. In August 1995, the City discovered the gasoline additive MTBE in drinking water supply wells at its Charnock Wellfield, located at 11375 Westminster Avenue, Los Angeles, California.
2. As of August 1995, the City's Charnock Wellfield had five operating municipal supply wells which provided approximately 45% of the drinking water for the City's 87,000 residents (1990 U.S. Census) and approximately 200,000 daytime customers. In 1996, levels of MTBE at the City's Charnock Wellfield rose to more than 600 parts per billion ("ppb") (Well No. 19) and, by June 13, 1996, all of the supply wells at the City's Charnock Wellfield were shut down due to persistent and increasing levels of MTBE contamination. (See Draft Investigation Report, MTBE Contamination, City of Santa Monica Charnock Wellfield, Los Angeles, California prepared by Komex•H2O Science, March 21, 1997, at page 29 and Appendix C.)
3. In October 1996, following the shutdown of the City's Charnock Wellfield, the SCWC, another water purveyor utilizing the Charnock Sub-Basin, shut down its wellfield in the Sub-Basin, in order to avoid drawing the contamination toward the SCWC Wellfield. Prior to this shutdown, SCWC had two operating municipal supply groundwater wells, at 11607 and 11615 Charnock Road, Los Angeles, that provided a portion of the drinking water for approximately 10,000 residences and businesses in Culver City.

B. Water Replacement Quantities and Costs

4. As a result of the discovery of MTBE in the City's Charnock Wellfield and the shutdown of both of the wellfields in the Charnock Sub-Basin, the Impacted Parties began purchasing alternative water supplies from the Metropolitan Water District.
5. The Impacted Parties have documented the costs of water replacement. A summary of these costs, prepared by the Impacted Parties, is provided as Attachment C.

6. In 1995, the last full calendar year in which the City and SCWC pumped water from their Charnock Wellfields, the City extracted 6,320 acre feet and SCWC extracted 577 acre feet of water, for a total of 6,897 acre feet. See Attachment B.
7. The total extraction for 1995 is consistent with the estimates of "perennial" yield for the Charnock Sub-Basin presented in the June 1992 "Santa Monica Groundwater Management Plan, Charnock and Coastal Sub-Basin" prepared by Kennedy/Jenks, for the City of Santa Monica, the Metropolitan Water District of Southern California, Southern California Water Company, and the West Basin Municipal Water District.
8. Beginning in 1997, Shell Oil Products Company ("Shell Products"), along with Chevron Products Company ("Chevron Products") and Exxon Corporation ("Exxon"), provided water replacement costs to the City and SCWC, for a total of approximately 8,900 acre feet per year, pursuant to temporary settlement agreements. The City's agreement expired on January 6, 2000. SCWC's agreement was cancelled by Shell Products, Chevron Products and Exxon prior to January 6, 2000. Shell Products, Chevron Products and Exxon declined to extend or renew these agreements and to continue providing water replacement.
9. On September 22, 1999, the EPA and the California Regional Water Quality Control Board, Los Angeles Region ("the Regional Board") (collectively "the Agencies") issued parallel administrative orders with identical scopes of work to Shell Oil Company, Shell Products and Equilon Enterprises, LLC (collectively "Shell"). (See the Shell Order, EPA Docket No. RCRA 7003-09-99-0007, and Regional Board Cleanup and Abatement Order No. 99-085.) These orders required Shell to begin providing the Impacted Parties with Replacement Water beginning January 7, 2000, for a period of 5 years. Shell is currently providing replacement water pursuant to these orders.

C. Charnock Sub-Basin Groundwater Resources and the Hydraulic Interconnection of its Aquifers

1. The City's and the SCWC's Charnock Wellfields (hereinafter "the Charnock Wellfields") draw groundwater from wells constructed within a groundwater basin known as the Charnock Sub-Basin. The Charnock Sub-basin groundwater resources

consist of the groundwater in the area bounded by the Santa Monica Mountains to the North, the Ballona Escarpment to the South, the Overland fault to the East, and the Charnock fault to the West.

2. The Charnock Sub-Basin consists of multiple interconnected groundwater bearing layers.
3. When the Charnock Wellfields were in operation, groundwater beneath Respondents' Source Sites was hydraulically upgradient from the Charnock Wellfields.
4. The California Regional Water Quality Control Board, Los Angeles Region, has adopted a Water Quality Control Plan (also know as a Basin Plan) that designated beneficial uses of the Charnock Sub-Basin groundwater, including municipal and domestic supply. (See Revised Water Quality Control Plan for the Los Angeles Region adopted on June 13, 1994.)
5. Geologic investigations within the Charnock Sub-Basin show that fine grained soils (such as clays and silts) between the Silverado aquifer and shallow unnamed aquifer are thin and laterally discontinuous, including in the vicinity of Respondents' Source Site facilities. These soils do not effectively restrict the movement of water or of contaminants vertically between the shallow unnamed aquifer and Silverado aquifer in the vicinity of these sites.
6. The connection between the Silverado aquifer and the shallow unnamed aquifer is shown, inter alia, by the behavior of water levels in both of these saturated zones since groundwater extractions ceased at the City's wellfield in June 1996. Since that time, groundwater elevations in the Silverado aquifer have risen. Saturation of the Silverado aquifer has reduced the downward migration of water from the shallow unnamed aquifer and, as a result, the groundwater elevations in the shallow unnamed aquifer in the Charnock Sub-Basin have also risen. Groundwater elevations in the shallow unnamed aquifer beneath Respondent's Source Site Facilities have also increased significantly since pumping ceased at the Charnock Wellfields, indicating a hydraulic connection between the Silverado aquifer and the shallow unnamed aquifer.
7. Well construction information for numerous wells installed at several PRP Sites in the Initial Investigation Area indicates that numerous wells created additional pathways for

contamination to move from the shallow unnamed aquifer to the drinking water (Silverado) aquifer.

8. The interconnection between the shallow unnamed aquifer and the Silverado aquifer is further addressed in the work of the City's consultant, Kennedy/Jenks. This consultant determined that drainage into the subsurface is a significant source of recharge for the Silverado (drinking water) aquifer. (See Kennedy/Jenks Consultants, 1992, "Santa Monica Groundwater Management Plan, Charnock and Coastal Sub-Basins, June 1992, Final Report," Chapter 4 (Groundwater Budget Estimation), page 4-1.)
9. Similarly, Geomatrix Consultants (Geomatrix), working on behalf of Shell Products, Chevron Products Company, and Exxon Company, U.S.A., determined that water entering the subsurface within the area of the Charnock Sub-basin was a source of recharge to the Silverado aquifer,. (See Geomatrix Consultants, 1997, "Conceptual Hydrogeologic Model, Charnock Wellfield Regional Assessment, Los Angeles, California," December 18, 1997, page 6-1 and Table 6-4.)
10. Geomatrix also performed geologic and statistical analyses of available lithologic boring logs within and near the Charnock Sub-Basin and determined that the aquitard between the shallow unnamed aquifer and the drinking water (Silverado) aquifer is laterally discontinuous. (Geomatrix Consultants, 1998, "Model Layer Revisions," memo to Mr. Steven Linder, USEPA, and Mr. David Bacharowski, RWQCB, July 23, 1998.)

D. The Agencies' Response to the Charnock Sub-Basin MTBE Contamination

11. EPA, in consultation with the State, determined that a joint State and federal response was necessary to effectively protect human health and the environment from the threat created by MTBE contamination in the Charnock Sub-Basin and at the City's Charnock Wellfield. In April 1997, in order to pursue a coordinated effort to determine the source or sources of the MTBE at the City's wellfield, to remediate this environmental problem, and to restore the Charnock Sub-Basin to its beneficial use as a drinking water supply, EPA and the Regional Board entered into a Memorandum of Understanding ("MOU").

12. Pursuant to the MOU, the Agencies identified thirty (30) potential source facilities ("Potential Source Sites") within an approximate one and one-quarter mile radius of the City's Charnock Wellfield. Two of the Potential Source Sites were gasoline product pipelines, and twenty-eight of the Potential Source Sites were underground storage tank systems ("USTs") where gasoline had been or was being stored. The ten Source Sites that are the basis of this Order were among the twenty-eight UST facilities identified by the Agencies. These facilities are shown on Figure 1 as PRP Sites Nos. 1, 4, 5, 6, 7, 8, 10, 16, 23, and 30.
13. On June 19, 1997, the Agencies sent parties with responsibility for the Potential Source Sites, including Respondents, letters requiring the production of information, including fieldwork results, in order to determine which of the sites had contributed MTBE affecting the Charnock Sub-Basin. Respondents were required to provide information concerning and to conduct fieldwork at Potential Source Site facilities.
14. The Agencies have sent Respondents letters providing determinations that, as a result of releases of MTBE and other gasoline constituents affecting the Charnock Sub-Basin from Respondents' Source Sites (PRP Site Nos. 1, 4, 5, 6, 7, 8, 10, 16, 23, and 30), Respondents are required to participate in the Regional Response necessary to address MTBE and other gasoline constituent contamination within the Charnock Sub-Basin. The Agencies have attempted to engage Respondents in settlement negotiations; however, these efforts have not resulted in any settlement or any satisfactory offer of settlement from Respondents in the judgment of the Agencies.

E. Description of Contaminants of Concern

15. MTBE is a synthetic, volatile, colorless, organic ether, with a turpentine-like taste and odor. The Chemical Abstracts Service ("CAS") registry number for MTBE is 1634-04-4. There are no known naturally occurring sources of MTBE. MTBE contains 18.2 percent oxygen by weight. MTBE was approved as a gasoline additive in 1979. In the 1980s, MTBE was used in varying amounts as an octane enhancer. Since the passage of the Clean Air Act Amendments of 1990, MTBE has been used in gasoline in increasing quantities as an oxygenate in reformulated gasoline designed to produce cleaner burning

fuel. On March 25, 1999, Governor Gray Davis of California issued an Executive Order requiring that MTBE be phased out of gasoline in the State, based on his finding that it posed "a significant risk to the environment" and a "threat to groundwater and drinking water."

16. The fate and transport of MTBE in the subsurface is significantly different from that of the gasoline constituents that have historically been of toxicological concern, specifically the BTEX compounds (benzene, toluene, ethylbenzene, and xylene). Once released into the subsurface, MTBE separates from other gasoline constituents in the presence of moisture. MTBE has a strong affinity for water and does not readily adsorb to soil particles. Rather, MTBE moves with groundwater at approximately the rate of that water's movement. In addition, MTBE is more persistent than the BTEX compounds because it does not readily biodegrade in the subsurface. In comparison to BTEX constituents, MTBE is significantly more mobile in the subsurface and will migrate from the source area more quickly. MTBE is also more difficult and expensive to remove from water than other gasoline constituents.
17. EPA's December 1997, Drinking Water Advisory: Consumer Acceptability Advice and Health Effects Analysis on Methyl Tertiary-Butyl Ether (MTBE) ("1997 EPA Advisory") (Section 7.1) states: "the weight of evidence indicates that MTBE is an animal carcinogen, and the chemical poses a carcinogenic potential to humans (NSTC, 1997, page 4-26)." EPA has identified one of MTBE's metabolites, formaldehyde, as a probable human carcinogen (Group B1). The California Action Level for MTBE is 13 ppb. In January 1999, the State of California promulgated a secondary maximum contaminant level ("MCL") (based on taste and odor impacts) for MTBE of 5 ppb. In November 1999, California proposed a primary drinking water standard for MTBE at 13 ppb. No federal MCL for MTBE has yet been adopted. However, EPA's Drinking Water Advisory, issued in 1997, set a level of 20 to 40 ppb for taste and odor. MTBE has been demonstrated to cause hepatic, kidney and central nervous system toxicity, peripheral neurotoxicity and cancer in animals.
18. When released into the environment, MTBE is a solid waste, as that term is used in RCRA Section 7003, 42 U.S.C. Section 6973. MTBE is a listed CERCLA hazardous substance (40 C.F.R. Part 302.4), based on its designation as a hazardous air

pollutant under the Clean Air Act (Section 112 of the Clean Air Act, 42 U.S.C. Section 7412).

19. When released into the environment, gasoline constituents are a solid waste, as that term is used in RCRA Section 7003, 42 U.S.C. Section 6973.
20. Gasoline constituents, other than MTBE, have been found at Respondents' Source Sites listed in Attachment D and also pose a significant health threat. Specifically, benzene is a known human carcinogen (Class A) and leukemogen. Its systemic toxicity and carcinogenic effects are manifested in the liver, bone marrow, erythropoietic system and central nervous system. The federal primary MCL for benzene is 5 ppb and the State of California primary MCL for benzene is 1 ppb. Toluene and xylene are organic solvents, which are linked with toxic effects in the central nervous system, the liver, the kidney and the reproductive system. Ethylbenzene has demonstrated hepatic, kidney and central nervous system toxicity. See EPA Integrated Risk Information System (IRIS) 1999. Benzene and toluene are RCRA hazardous constituents as defined at 40 C.F.R. Part 261, Appendix VIII.
21. Tertiary Butyl Alcohol ("TBA")(CAS-75-65-0) is a gasoline constituent, an impurity in commercial grade MTBE, and a breakdown product of MTBE that has been found at some of Respondents' Source Sites. Exposure to TBA elicits both non-cancer and systemic toxic responses, as well as evidence of carcinogenicity. Recent National Toxicology Program (NTP) findings have suggested that TBA demonstrates carcinogenic activity in two rodent species [NTP Technical Report #436. 1994. NIH, U.S. DHHS]. Further, formaldehyde is an in vivo metabolic product of TBA exposure, and U.S. EPA has determined that formaldehyde is a Probable Human Carcinogen (class B1) [U.S. EPA Integrated Risk Information System, 1991]. Morphologic changes in thyroid follicular cells, in addition to renal tubular nephropathy have been observed in experimental animals exposed to TBA [Cirvello, J.D. et al. 1995. Toxicol. Indus. Health]. Reduced weight gain and increased mortality has also been observed in experimental animals exposed to high concentrations of TBA in their drinking water. California's Office of Environmental Health Hazard Assessment has conducted an interim assessment based on preliminary calculations of the carcinogenicity of TBA, concluding that exposures to TBA via the oral route represent a one in a million excess cancer risk at 12 ppb. Based on

this assessment, California has set an Action Level for TBA of 12 ppb.

22. Potential exposure pathways for Charnock Sub-Basin groundwater containing MTBE and other gasoline constituent contamination are as follows: ingestion or inhalation of, or direct contact with, groundwater containing dissolved contaminants.
23. EPA has determined that the release, threat of release and presence of MTBE and other gasoline constituents in the Charnock Sub-Basin may present an imminent and substantial endangerment to health and the environment as those terms are used in RCRA Section 7003, 42 U.S.C. Section 6973.

F. Respondents' Status

24. Respondent Chevron is a corporation, incorporated in the State of Pennsylvania.
25. Respondent Exxon is a corporation, incorporated in the State of Nebraska.
26. Respondent Arco is a corporation, incorporated in the State of Delaware.
27. Respondent Conoco is a corporation, incorporated in the State of Delaware.
28. Respondent Kayo is a corporation, incorporated in the State of Delaware.
29. Respondent Douglas is a corporation, incorporated in the State of California.
30. Respondent Unocal is a corporation, incorporated in the State of Delaware.
31. Respondent Mobil is a corporation, incorporated in the State of Nebraska.
32. Respondent Tosco is a corporation, incorporated in the State of Nebraska.

33. Respondent Thrifty is a corporation, incorporated in the State of California.
34. Respondent Best is a limited partnership, registered in the State of California.
35. Respondent Nishida is a person, residing in the State of California.
36. Respondent HLW is a corporation, incorporated in the State of California.

G. Respondents' Source Site Facilities' Ownership, Leasehold Interests, Operation and Releases

PRP SITE No. 1 - Exxon

1. Humble Oil & Refining Company (a predecessor in interest to Exxon Corporation) purchased a portion of the property at 11284 Venice Boulevard ("PRP Site No. 1") from Catherine Boos and Gladys Skulth on April 6, 1970 and another portion of the property from Judith Kushner on May 5, 1970. (See Grant Deeds provided in Exxon's July 24, 1997 Information Request Response ("PRP Site No. 1 Information Request Response") to the Agencies' June 19, 1997 Information Request.)
2. In the narrative portion of the PRP Site No. 1 Information Request Response, Exxon states that "Exxon Corporation, through its division Exxon Company USA owned the property at 11284 Venice Boulevard, Culver City, California from sometime prior to January 1, 1980 until February 2, 1995." On February 2, 1995, Mr. Azizedin Taghizadeh, purchased the property from Exxon. Exxon's narrative also states "On February 2, 1995, Mr. Azizedin Taghizadeh purchased the underground storage tanks and associated piping from Exxon."
3. Culver City Fire Department records indicate that PRP Site No. 1 was operated as a gasoline service station by Humble Oil Company since 1970. (See, October 14, 1998 Final Site Investigation Report prepared by Acton Mickelson Environmental ("AME Report") for Exxon, at page 1.)

4. The AME Report also stated that the Culver City Fire Department records indicate that the four USTs installed in 1971 (one 1,000 gallon used oil, one 6,000 gallon premium unleaded gasoline, one 8,000 gallon unleaded gasoline, and one 10,000 gallon regular leaded gasoline) were removed in January 1989. The AME Workplan indicates that the four USTs currently at the site (one 1,000 gallon used oil, two 10,000 gallon containing super and plus unleaded gasoline, and one 12,000 regular unleaded gasoline) were installed in January 1989. (See AME Report at page 2.)
5. On April 8, 1992, Jay Kruger of Exxon Company USA completed a UST Unauthorized Release (Leak)/Contamination Site Report for PRP Site No. 1. The Report indicated that a gasoline release was discovered on April 7, 1992 as part of a site investigation.
6. In response to the Agencies' June 19, 1997 Information Request, Exxon provided a Site Investigation and Cleanup History form for PRP Site No. 1. On this form, Exxon documented that PRP Site No. 1 had an unauthorized release that contaminated soil at the site with gasoline constituents.
7. The release history of PRP Site No. 1, along with the October 14, 1998 Final Site Investigation Report and the September 22, 1999 Quarterly Monitoring Report, document that PRP Site No. 1 has discharged gasoline containing MTBE that has impacted soil and groundwater. (See Final Site Investigation Report Table 4, See Quarterly Monitoring Report Table 3.)
8. On December 3, 1999, Exxon Corporation filed with the California Secretary of State for a name change from Exxon Corporation to Exxon Mobil Corporation.
9. Exxon is a past owner and/or operator of a facility, and has contributed to disposal within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973, with respect to releases at PRP Site No. 1.

PRP Site No. 4 - Arco

1. On March 26, 1947, Richfield Oil Corporation obtained ownership of the property for ARCO Site No. 1246 (PRP Site

- No. 4) located at 11181 West Washington Blvd., Culver City, California, from Kenneth and Neva Smith. (See Information Request Response, Grant Deed, dated March 26, 1947.)
2. On August 14, 1991, Richard C. Spake of ARCO Petroleum Products Company completed a UST Permit Application - Form A (Form). The Form designates ARCO Petroleum Products Company as the property owner of PRP Site No. 4 and the owner of the tanks.
 3. Gasoline service station operations began at PRP Site No. 4 in 1965. Three (one 6,000 gallon and two 4,000 gallon) single-walled steel underground storage tanks (USTs) were installed at the site during that year. (See November 5, 1989 tank information report provided by Arco Products Company to EPA and Richfield Oil Corporation As-Built drawing, revised October 2, 1989 drawing by ARCO Products Company, provided to EPA.)
 4. By letter dated August 15, 1996, ARCO Products Company informed the Regional Board that PRP Site No. 4 has operated as a gasoline service station since at least January 1, 1980.
 5. On August 30, 1990, David Esfandi of the LA County Department of Public Works completed a UST Unauthorized Release (Leak)/Contamination Site Report for PRP Site No. 4. The Report indicated that a gasoline release was discovered at the site during a May 24, 1990 tank removal.
 6. In response to the Agencies' June 19, 1997 Information Request, Arco provided a Site Investigation and Cleanup History form for PRP Site No. 4. On this form Arco documented that PRP Site No. 4 had an authorized release of gasoline due to a leaking UST that contaminated soil and groundwater at the site with gasoline constituents.
 7. The release history of PRP Site No. 4, along with the March 27, 1998 Technical Summary Report and the October 14, 1999 Quarterly Monitoring Report, document that PRP Site No. 4 has released gasoline containing MTBE that has impacted soil and groundwater. (See Technical Summary Report, Table 2, and Quarterly Monitoring Report, Table 2.)
 8. Arco is currently incorporated as Atlantic Richfield Company. (See Arco's Securities and Exchange Commission

Filing 10-K/A for the fiscal year ended December 31, 1998.) Arco Products Company, Inc. filed its certificate of dissolution with the California Secretary of State on December 23, 1996.

9. Arco is a past owner and/or operator of a facility, and has contributed to disposal within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973, with respect to releases at Site No. 4.

PRP Site No. 5 - Chevron

1. Audrey Joan Brachman and Patricia Ann Battat, owners of the property at 11197 Washington Place (PRP Site No. 5), leased this property to Standard Oil Company (predecessor in interest to Chevron) for the period between April 1, 1971 and October 31, 1991. (See January 4, 1971 lease provided in Chevron's July 24, 1997 Information Request Response ("PRP Site No. 5 Information Request Response").)
2. The January 4, 1971 lease indicated that Standard Oil Company was to pay the property owners a rental cost, determined in part by the amount of gasoline delivered to the property. The lease also states that "[l]essee [Standard Oil Company] expects to commence service station construction hereunder within 90 days after possession is delivered to Lessee as provided. . . ." On February 2, 1975, Standard Oil Company received a permit from the Los Angeles County Air Pollution Control District to install and operate a gasoline dispensing facility vapor recovery system for 3 tanks and 9 dispensers at the site. This information indicates that the property has been utilized as a gasoline service station since the early 1970s.
3. William F. Fulton operated the gasoline station at PRP Site No. 5 under a franchise agreement with Standard Oil Company that expired on December 29, 1982. Mr. Fulton also entered into a lease with Chevron. (See January 26, 1980 Lease.) As of 1997, Paul Ha was the "Dealer of Record" for PRP Site No. 5. (See Chevron's Information Request Response for PRP Site No. 5.)
4. In May 1991, Chevron notified Audrey Bachman and Patricia Battat that, "[i]n accordance with the provision set forth in said lease [the January 4, 1971 lease] we hereby notify

you that we elect to extend the lease for a further period of five years, commencing November 1, 1991 and ending September 30, 1996."

5. On July 22, 1994, S.M. Sessung of Chevron U.S.A. Products Company completed a UST Permit Application - Form A for PRP Site No. 5. The facility was designated as Chevron Station 9-2894 and indicated that the tank owner was Chevron U.S.A. Products Company.
6. In October, 1996, during tank replacement activities, Chevron identified gasoline contaminated soils in the tank pit area of the former tanks.
7. In Chevron's narrative response to the Agencies' June 19, 1997 Appendix B Information Request, Chevron listed the owner of the tanks at PRP Site No. 5 as Chevron Products Company.
8. In response to the Agencies' June 19, 1997 information request, Chevron provided a Site Investigation and Cleanup History form for PRP Site No. 5. On this form, Chevron documented that PRP Site No. 5 had an unauthorized release that contaminated soil beneath the site with gasoline constituents, including MTBE.
9. The release history of PRP Site No. 5, along with the August 24, 1999 Additional Site Assessment Report, document that PRP Site No. 5 has released gasoline containing MTBE that has impacted soil and groundwater. (See August 24, 1999 Additional Site Assessment Report, Tables 3 and 4).
10. Chevron is a past owner and/or operator of a facility, and has contributed to disposal within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973, with respect to releases at Site No. 5.

PRP Site No. 6 - Conoco, Kayo and Douglas

1. Respondent Douglas, a wholly-owned subsidiary of Respondent Conoco, leased the property at 11198 Washington Place, Culver City (PRP Site No. 6) on March 21, 1962 from Nathan Levy and Florence Levy, in order to operate a gasoline service station. On or about March 1, 1977, Douglas again leased the service station property from David and Florence

Levy, as Co-Trustees of the Residual Trust created pursuant to the Will of Nathan Levy. On September 1, 1978, Douglas entered into a sublease of the property to Oasis Petro Energy Corporation. Oasis Petro Energy was also known as Oasis Petroleum Corporation. On October 13, 1982, Douglas agreed to assignment of the sublease to other entities including a partnership called Pacific Oasis. By 1984, Paramount Petroleum Corporation had become a successor in interest to Oasis Petroleum Corporation. Paramount filed for bankruptcy on June 24, 1984. On July 6, 1984, Douglas agreed to an assignment of the sublease to George Adamian, which continued through the end of the period of Douglas's lease in April 1992.

2. On January 15, 1987, Douglas assigned all of its interest in PRP Site No. 6 to another wholly-owned subsidiary of Conoco, Respondent Kayo Oil Company.
3. Douglas acquired a property interest in PRP Site No. 6 by leasing that property. In addition, Respondent Douglas agreed, in its March 1, 1977 Service Station Ground Lease, "to indemnify and hold Lessor harmless from any claim or liability for injury or death of persons or damage to property arising in any manner from Lessee's use or occupancy of the leased premises." The Lease also provided that the Douglas would "promptly comply with all requirements of any public authority for the correction of any condition concerning the leased premises." The Lease specified that the property was to be surrendered to Lessor, at the end of the lease period "in as good condition as received."
4. On September 4, 1992, Gregory P. Fletcher of Conoco, Inc. completed a UST Unauthorized Release (Leak)/Contamination Site Report. The Report indicated that a gasoline release was discovered on September 2, 1992 as a part of tank removal activities at PRP Site No. 6.
5. In response to the Agencies' June 19, 1997 Information Request, Conoco provided a Site Investigation and Cleanup History for PRP Site No. 6. On this form, Conoco documented that PRP Site No. 6 had an unauthorized release that contaminated soil and groundwater at the site with gasoline constituents.

6. The release history of PRP Site No. 6, along with the February 13, 1998 Site Investigation Report and the July 15, 1999 Quarterly Monitoring Report, document that PRP Site No. 6 has released gasoline containing MTBE that has impacted soil and groundwater (See Site Investigation Report, Table 2, and Quarterly Monitoring Report, Table 3.)
7. As a result of its lease of the property, Douglas is a past owner and/or operator of a facility, and has contributed to disposal within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973. As a result of its assumptions of the leasehold rights and responsibilities of Douglas, Kayo is a past owner and/or operator of a facility, and has contributed to disposal within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973, at PRP Site No. 6.
8. As described further in the April 22, 1999 Unilateral Administrative Order, Docket No. RCRA-7003-09-99-0004, Respondent Conoco assumed liability to the owner of the fee title to the real property at PRP Site No. 6 to respond to gasoline-related contamination that resulted from service station operations at that location. As a result of its assumption of the responsibilities of its subsidiaries, as well as its activities at PRP Site No. 6, Respondent Conoco is an owner and/or operator of a facility, and has contributed to disposal, within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973, with respect to releases at PRP Site No. 6.

PRP Site No. 7 - Unocal

1. Between 1964 and May 1987, Union Oil Company of California sub-leased the property at 11203 Washington Place in Culver City (PRP Site No. 7). After May 1987, Unocal obtained ownership of PRP Site No. 7. (See Unocal's July 24, 1997 response to Agencies' June 19, 1997 Information Request ("PRP Site No. 7 Information Request Response") at page 1.)
2. PRP Site No. 7 began operation as a gasoline service station as early as 1964, when two 4,000 gallon USTs were installed at the site. These tanks were removed in 1985, and two 12,000 gallon USTs were installed at the site. These 12,000 gallon USTs stored unleaded gasoline until they were removed in either 1993 or 1994. (See PRP Site No. 7 Information Request Response at pages 1 and 4.)

3. On June 14, 1992, Nancy Drew of the Los Angeles County Department of Public Works completed a UST Unauthorized Release (Leak)/Contamination Site Report. The Report indicated that releases of premium and regular unleaded gasoline were discovered on March 25, 1992 as a part of subsurface monitoring activities at the site.
4. In response to the Agencies' June 19, 1997 Information Request, Unocal provided a Site Investigation and Cleanup History for PRP Site No. 7. On this form, Unocal documented that PRP Site No. 6 had an unauthorized release that contaminated soil and groundwater with gasoline constituents.
5. The release history of PRP Site No. 7, along with the March 30, 1998 Site Assessment Report, documents that PRP Site No. 7 has released gasoline containing MTBE that has impacted soil and groundwater (See Site Assessment Report, Tables 1A, 2, and 4.)
6. Unocal is an owner and/or operator of a facility, and has contributed to disposal, within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973, with respect to releases at PRP Site No. 7.

PRP Site No. 8 - Mobil

1. A July 24, 1964 Service Station Ground Lease indicates that Socony Mobil Oil Company, Inc. rented the property at 3800 Sepulveda Boulevard in Culver City from Suzanne Lawrence for a period of 15 years commencing on January 1, 1965. The Ground Lease included provision for the rental payment to be dependent, in part, on the volume of gasoline delivered to the property.
2. According to a Grant Deed provided by Mobil, Mobil Oil Corporation obtained the property at 3800 Sepulveda Boulevard in Culver City (PRP Site No. 8) from Suzanne Schaefer on March 2, 1984.
3. Mobil Oil Corporation entered into a Service Station Lease with Adli Abdelsayed on March 26, 1985. On April 15, 1988, Mobil Oil Corporation entered into another service station lease with Adli Abdelsayed. On August 2, 1996, Mobil Oil

Corporation entered a "Petroleum Marketing Practices Act" Fuels Franchise Agreement with Adli Abdelsayed.

4. According to a September 8, 1997 letter from Mobil Business Resources Corporation to the Regional Board, "Mobil Oil Corporation is the owner of the underground storage tanks used to store gasoline at Mobil Service Station 18-FX5 [PRP Site No. 8.]"
5. On August 14, 1990, Sheila A. Malloy of Mobil completed a UST Unauthorized Release (Leak)/Contamination Site Report. The Report indicated that a release of gasoline was discovered on August 9, 1990 during subsurface monitoring activities.
6. In response to the Agencies' June 19, 1997 Information Request, Mobil provided a Site Investigation and Cleanup History form for PRP Site No. 8. On this form, Mobil documented that PRP Site No. 8 had an unauthorized release of gasoline that contaminated soil and groundwater at the site with gasoline constituents.
7. The release history of PRP Site No. 8, along with the February 23, 1998 Subsurface Investigation Report, document that PRP Site No. 8 has released gasoline containing MTBE that has impacted soil and groundwater. (See Subsurface Investigation Report, Tables 2-2 and 4-3).
8. Mobil is an owner and/or operator of a facility, and has contributed to disposal, within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973, with respect to releases at PRP Site No. 8.

PRP Site No. 10 - Chevron

1. A March 2, 1964 lease indicates that Standard Oil Company leased the property at 3775 Sepulveda Boulevard in Los Angeles (PRP Site No. 10) from Harold Merton Jack, the Estate of Hayward Davidson Jack, and Norma Alice Logan.
2. On January 17, 1980, Chevron U.S.A. Inc. extended the March 2, 1964 lease with the successors to the landowners of the PRP Site No. 10 property, listed as Greta H. Jack, Norma Alice Logan, Patricia Jean Cowie, and Nancy Merrill. The lease was subsequently modified, amended, and/or extended

on January 24, 1985, December 11, 1989, and July 1, 1994 by the subsequent property owners and Chevron U.S.A. Inc.

3. In Chevron's narrative response to the Agencies' June 19, 1997 Appendix B Information Request, Chevron listed the owner of the tanks at PRP Site No. 10 as Chevron Products Company.
4. In response to the Agencies' June 19, 1997 Appendix B Information Request, Chevron Products Company provided a Site Investigation and Cleanup History for PRP Site No. 10. On this form, Chevron documented that PRP Site No. 10 had an unauthorized release of gasoline which contaminated soil at the site with gasoline constituents (including MTBE) and groundwater at the site with gasoline constituents.
5. The release history of PRP Site No. 10, along with the June 10, 1998 Site Assessment Report and the January 14, 2000 Quarterly Monitoring Report, document that PRP Site No. 10 has released gasoline containing MTBE that has impacted soil and groundwater. (See Site Assessment Report, Tables 6 and 9, and Quarterly Monitoring Report, Table 3).
6. Chevron is an owner and/or operator of a facility, and has contributed to disposal, within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973, with respect to releases at PRP Site No. 10.

PRP Site No. 16 - Tosco and Unocal

1. Beginning prior to January 1, 1980, Union Oil Company of California owned the property at 11280 National Boulevard in Los Angeles (PRP Site No. 16). On April 1, 1997, Tosco purchased PRP Site No. 16 as a part of Tosco's acquisition of Unocal's west coast refining and marketing assets. (See Tosco's response to Agencies' June 19, 1997 Information Request ("PRP Site No. 16 Information Request Response"), page 2.)
2. Gasoline service station operations at the site began as early as 1953, when the Los Angeles Fire Department granted a permit to Union Oil for the installation of two 6,000 gallon and one 280 gallon UST. In 1992, these three tanks, as well as three additional 10,000 gallon USTs, were removed from the site. Also in 1992, two 12,000 gallon

USTs and one 550 gallon waste oil UST were installed at the site and are currently in operation. (See PRP Site No. 16 Information Request Response, pp. 5-6.)

3. In response to the Agencies' June 19, 1997 Information Request, Tosco provided an incomplete (only page 1 of 2 pages were provided) Site Investigation and Cleanup History for PRP Site No. 16. On this form, Tosco documented that PRP Site No. 16 had an unauthorized release of gasoline that contaminated soil at the site with gasoline constituents.
4. The release history of PRP Site No. 16, along with the March 30, 1998 Site Investigation Report and the 4th Quarter 1999 Quarterly Groundwater Monitoring Report, document that PRP Site No. 16 has released gasoline containing MTBE that has impacted soil and groundwater. (See Site Investigation Report, Table 2, and Quarterly Monitoring Report, Table 1B).
5. Tosco and Unocal are owners and/or operators of a facility, and have contributed to disposal, within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973, with respect to releases at PRP Site No. 16.

PRP Site No. 23 - Chevron, Thrifty and Best

1. On March 27, 1969, Gulf Oil Corporation ("Gulf") acquired ownership of the property and fixtures (including the UST system) located at 3505 Sepulveda Boulevard.
2. On May 3, 1978, Gulf leased the service station at 3505 Sepulveda to Mr. Aram Shishmanian.
3. On July 1, 1985, as a result of the merger between Gulf Oil Corporation and Chevron U.S.A. Inc., Chevron U.S.A. Inc. acquired ownership of the property and fixtures (including the UST system) located at 3505 Sepulveda Boulevard.
4. On September 1, 1989, Chevron U.S.A. Inc. notified Mr. Shishmanian, as the party occupying and controlling the premises at 3505 Sepulveda Boulevard, of the importance of complying with health, safety, and environmental laws relating to management of gasoline at the service station.

5. On August 31, 1990, Best California Gas, Ltd., a California Limited Partnership acquired the ownership of the property (including the UST system) located at 3505 Sepulveda Boulevard. The USTs at the site were not operated between September 13, 1990 and the date they were removed. In or about November 1990, three new USTs and associated piping were installed. By January 1991, Thrifty had begun operating the USTs at PRP Site No. 23.
6. In response to the Agencies' June 19, 1997 Information Request, Chevron provided a Site Investigation and Cleanup History for PRP Site No. 23. On this form, Chevron documented that PRP Site No. 23 had an unauthorized release of gasoline from USTs and product lines that contaminated soil at the site with gasoline constituents.
7. The release history of PRP Site No. 23, along with the June 25, 1999 Site Assessment Report and the January 14, 2000 Quarterly Monitoring Report, document that PRP Site No. 23 has released gasoline containing MTBE that has impacted soil and groundwater. (See Site Assessment Report, Tables 2 and 3, and Quarterly Monitoring Report, Tables 2 and 4.)
8. Chevron, Thrifty and Best are owners and/or operators of a facility, and have contributed to disposal, within the meaning of RCRA Section 7003, 42 U.S.C. Section 6973, with respect to releases at PRP Site No. 23.

Site No. 30 - Nishida and HLW

1. HLW Corporation has owned the property at 11166 Venice Blvd., in Culver City (PRP Site No. 30) since July 6, 1955. (See Grant Deed, dated July 6, 1955.)
2. HLW Corporation has leased PRP Site No. 30 for use as an automobile washrack and gasoline sales station since February 22, 1957. (See lease with Henry Siegel and Sylvia Siegel on February 22, 1957.)
3. On June 1, 1978, Harold Tarlov, Roland Weber, and Kazuho Nishida entered into a Partnership Agreement to operate several facilities, including PRP Site No. 30.
4. On October 29, 1981, Vernon W. Maynard and Steven Springer, Brian E. Brooks and James Michael Welch, with the consent

of HLW Corporation, assigned their sublease for PRP Site No. 30 to Kazuho Nishida and Arnold Fung.

5. According to the narrative response to the Agencies' June 19, 1997 information request (prepared on behalf of Nishida & Fung by Kazuho Nishida's attorney J. Sheila Welch), a permit was issued to Siegel for installation of three 4,000 gallon gasoline tanks on August 23, 1957.
6. The facility operated as a gasoline station up until August 17, 1988. (See June 1, 1999 Site Assessment Report, page 4.)
7. On July 26, 1990, David Esfandi of the Los Angeles County Department of Public Works completed a UST Unauthorized Release (Leak)/Contamination Site Report. The Report indicated that a release of gasoline was discovered on June 26, 1990 during tank removal activities.
8. In response to the Agencies' June 19, 1997 Information Request, J. Sheila Welch (on behalf of Kazuho Nishida) provided a Site Investigation and Cleanup History form which documents that PRP Site No. 30 had an unauthorized release of gasoline suspected from a hole in one tank which contaminated soil beneath the site with gasoline constituents.
9. Union Oil Company of California ("Union" or "Unocal") and Arnold M. Fung & Kazuho Nishida a Partnership d.b.a. Great West Car Wash entered into a fuel purchasing contract on August 1, 1985. This contract included terms which required Union to sell and deliver to Great West Car Wash at 11166 Venice Boulevard (PRP Site No. 30) Union 76 Super gasoline (as well as Union 76 Unleaded, Regular and diesel fuels) for the period between October 1, 1985 and September 30, 1988. (See August 1, 1985 Retail Motor Fuel Purchase Contract R-0566, page 1, provided by J. Sheila Welch in response to the Agencies' June 19, 1997 Information Request.)
10. In an August 14, 1996 letter to Robert Ghirelli, Executive Director of the Los Angeles Regional Water Quality Control Board, Robert A. Matson, Environmental Compliance Coordinator for Unocal, stated that Unocal began adding MTBE as an additive to Unocal gasoline in October 1986. Mr. Matson provided a sales record of MTBE that documents

that Arco Chemical sold MTBE to Unocal (at a Los Angeles, CA location) in October 1986. (See August 14, 1996 letter from Mr. Matson to Robert Ghirelli, page 3 and Appendix A.) In an internal Unocal memo, Scott A. Stout stated that Unocal began adding MTBE in automotive fuels in California in the spring of 1986. Mr. Stout stated that "its [MTBE's] use was originally as a octane booster in our [Unocal's] new Premium Unleaded (92 octane) gasoline which we began producing at that time [Spring of 1986]." (See November 11, 1996 memo from Scott A. Stout, Ph.D. to Brian Kelly, page 2.)

11. On December 11, 1986, Associated Environmental Systems, Inc. (AES) performed a precision tank & line test on two 4,000 gallon tanks and lines at PRP Site No. 30. In a table presenting the tank test results, the two 4,000 gallon tanks were designated as storing "Prem." Product. (See December 11, 1986 AES Precision Tank & Line Test Results provided with PRP Site No. 30 Response to Agencies' June 19, 1997 Information Request Response.)
12. In December 1989, Remedial Management Corporation removed four underground storage tanks from PRP Site No. 30. During the tank removal, RMC noted that the "northernmost 4,000 gallon tank [had] holes on the west end near the top and on the side, halfway up." The two 4,000 gallon tanks at the site (including the northernmost tank referred to above) were approximately 32 years old at the time of removal and stored super unleaded fuel when they were in operation. Analytical results of soil samples taken beneath the northernmost 4,000 gallon UST at the time of the tank removal showed evidence of gasoline contamination. (See January 25, 1990 UST Removal Report for J. Sheila Welch at the Site of Great West Car Wash, Pages 2 and 3, Table 1, and Figure 3.) Based, inter alia, on the above information, EPA has determined that PRP Site No. 30 has had a release of gasoline containing MTBE.
13. The release history of PRP Site No. 30, along with the June 1, 1999 Site Assessment Report, document that PRP Site No. 30 has released gasoline containing MTBE that has impacted soil and groundwater. (See Site Assessment Report, Table 5).
14. Nishida and HLW are owners and/or operators of a facility, and have contributed to disposal, within the meaning of

RCRA Section 7003, 42 U.S.C. Section 6973, with respect to releases at PRP Site No. 30.

IV. CONCLUSIONS OF LAW AND DETERMINATION

Based on the Findings of Fact set forth above, EPA has concluded and determined that:

1. Respondents are "persons" as defined in Section 1004(15) of RCRA, 42 U.S.C. Section 6903(15) and 40 C.F.R. Section 260.10, whose past or present handling, storage, treatment, transportation or disposal of "solid wastes" as defined by Section 1004(27) of RCRA, 42 U.S.C. Section 6903(27), have contributed to a condition which may present an imminent and substantial endangerment to health or the environment under Section 7003 of RCRA, 42 U.S.C. Section 6973.
2. Respondents, and each of them, are or were an owner and/or operator of a facility where past or present handling, storage, treatment, transportation or disposal of a solid waste resulted in discharges of MTBE and other gasoline constituents. These discharges or releases have contributed to contamination that may present an imminent and substantial endangerment to health or the environment, within the meaning of Section 7003 of RCRA, 42 U.S.C. Section 6973.
3. MTBE and other gasoline constituents released from Respondents' Source Site Facilities listed in Attachment D, are "solid wastes" as defined by Section 1004(27) of RCRA, 42 U.S.C. Section 6903(27). These releases may present an imminent and substantial endangerment to health or the environment under Section 7003 of RCRA, 42 U.S.C. Section 6973.
4. The provision of water replacement is necessary to mitigate the imminent and substantial endangerment posed by the MTBE and other gasoline constituent contamination of the Charnock Sub-Basin.
5. Issuance of this Order is necessary to insure the continued provision of clean drinking water to the customers of the Impacted Parties.

6. Respondents are jointly and severally liable under Section 7003 of RCRA, 42 U.S.C. Section 6973, for providing water replacement.
7. Based on the foregoing FINDINGS OF FACT AND CONCLUSIONS OF LAW, and on the Administrative Record, the Director of the Waste Management Division of EPA, Region IX, has determined that issuance of this Order is necessary to protect public health and the environment.

ORDER

Based on the foregoing FINDINGS OF FACT AND CONCLUSIONS OF LAW, the Administrative Record, and the foregoing determinations, it is hereby ORDERED that:

1. Respondents shall fully cooperate with EPA and its authorized representatives in carrying out the provisions of this Order, including the taking of all actions set forth below within the time periods and in the manner prescribed by this Order and in the attached Scope of Work (SOW), provided as Attachment A.
2. Effective immediately upon receipt of this Order, Respondents, and each of them, shall take no action in the Charnock Sub-Basin Investigation Area in connection with the MTBE and other gasoline constituent contamination other than those actions required or permitted by EPA and/or the Agencies. Nothing in this Order shall relieve Respondents of their obligation to perform all tasks related to their individual Source Sites as required by the Agencies' June 17, 1997 letters to each Respondent, as amended and supplemented by subsequent Agencies' correspondence.
3. Nothing in this Order is intended to affect any obligation imposed on any Respondent as a result of any agreement between one or more Respondents and the Impacted Parties.

V. DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Order which are defined in RCRA shall have the meanings assigned to them in that Act. Whenever the terms listed below are used in this Order, the following definitions apply:

1. "Agencies" shall mean either the United States Environmental Protection Agency, or the California Regional Water Quality Control Board, Los Angeles Region, and the United States Environmental Protection Agency, acting jointly.
2. "Charnock Sub-Basin" shall mean the area of Los Angeles and Culver City bounded by the Overland Fault to the east, the Ballona escarpment to the south, the Charnock Fault to the west, and the base of the Santa Monica Mountains to the north.
3. "Charnock Sub-Basin Investigation Area" shall mean the approximately one and one-quarter mile radius area investigated by the Agencies in order to locate potential sources of the MTBE contamination at the City of Santa Monica's Charnock Wellfield.
4. "Charnock Wellfields" shall mean the drinking water supply wells operated by the City of Santa Monica at 11375 Westminster Avenue, Los Angeles, and the drinking water wells operated by the Southern California Water Company at 11607 and 11615 Charnock Road, Los Angeles.
5. "City" shall mean the City of Santa Monica, an Impacted Party.
6. "Days" shall mean calendar days, unless otherwise specified.
7. "EPA" shall mean the United States Environmental Protection Agency.
8. "Groundwater" shall mean the subsurface water that fills available openings in rock and/or soil materials such that they may be considered saturated.
9. "Impacted Parties" shall mean the City of Santa Monica and the Southern California Water Company.
10. "MCL" shall mean a federal or State promulgated standard for the Maximum Contaminant Level of a particular chemical when

present in water to be served for domestic use by a public water system.

11. "Methyl Tertiary-Butyl Ether" or "MTBE" shall mean the chemical whose CAS registry number is 1634-04-4.
12. "Ppb" shall mean parts per billion. Note that in some instances when this unit of measurement has been used for soil samples it represents a conversion from the original units in which the analyses of the chemical contents at issue were presented as either milligrams or micrograms per kilogram. Further, in some instances when this unit of measurement has been used for groundwater samples it represents a conversion from the original units in which the analyses of the chemical contents at issue were presented as either milligrams or micrograms per liter.
13. "RCRA" shall mean the Resource Conservation and Recovery Act (also referred to as the Solid Waste Disposal Act), as amended, 42 U.S.C. Sections 6901, et seq.
14. "Regional Board" shall mean the California Regional Water Quality Control Board, Los Angeles Region.
15. "Regional Response" shall mean the actions that are determined by the Agencies to be necessary to address the MTBE and other gasoline contamination of the Charnock Sub-Basin beyond those actions required to be taken at individual Source Sites or Potential Source Sites.
16. "Release(s)" shall mean discharge(s) or disposal as those terms are used in RCRA.
17. "Remedial Action" shall mean activities required by EPA and/or the Agencies to control or eliminate releases of MTBE and/or other gasoline constituent contamination from the Site.
18. "Scope of Work" shall mean the document provided as Attachment A to this Order and incorporated herein by this reference. The Scope of Work will also be referred to as the "SOW."
19. "SCWC" shall mean the Southern California Water Company, an Impacted Party.
20. "Shell" shall mean the parties to the Shell Order, EPA Docket No. RCRA-7003-09-99-0007.

21. "Source Sites" or "Source Site Facilities" shall mean the underground gasoline storage tank systems and gasoline product pipelines within the Charnock Sub-Basin Investigation Area.
22. "Tertiary-Butyl Alcohol" or "TBA" shall mean the chemical whose CAS registry number is 75-65-0.
23. "USTs" shall mean underground storage tank systems, including the underground storage tanks and associated piping and equipment formerly located at Respondents' PRP Site No. 11, 3801 Sepulveda Boulevard, Culver City, California.
24. "Work" shall mean those requirements set forth in Section VI of this Order (Work to be Performed) and the attached Scope of Work (SOW).

VI. WORK TO BE PERFORMED AND PARTICIPATION AND COORDINATION

1. Respondents are ordered to perform all activities required by the SOW, provided as Attachment A, and by this Order. Respondents shall make submittals and certifications as set forth below and within the time schedules specified in the SOW. All days specified below and in the SOW are consecutive calendar days from the Effective Date of this Order, unless otherwise specified. Due dates falling on a Saturday, Sunday, or federal holiday will be automatically extended to the next business day.
2. No provision of this Order shall relieve Shell of its obligation to perform each and every requirement of the Shell Order, except to the extent of any actual performance of all or a portion of the Water Replacement by Respondents to this Order.
3. Commencing on May 7, 2000, Respondents shall submit quarterly progress reports ("Progress Reports") in accordance with the SOW.
4. To the extent not inconsistent with this Order, or with EPA's instructions, Respondents shall at all times participate in the work to be performed under this Order and coordinate with EPA, its contractors, and Shell and Shell's contractors, and other parties (if any) working under EPA's direction at the Charnock Sub-Basin Investigation Area. Respondents shall

perform all activities required by this Order in such a manner so as not to impede the performance by other parties responsible for any ongoing or future activities.

5. As described in Section XIV, (Project Coordinators), Respondents shall jointly designate a Project Coordinator as the focal point for communications with EPA and other parties working at the Site. Respondents' Project Coordinator shall be responsible for overseeing Respondents' implementation of this Order and shall have the responsibility for assuring Respondents' integration and coordination of their activities.
6. Respondents to this Order are ordered to participate and cooperate with the Respondents to the Shell Order. Within five (5) days from the Effective Date of this Order, the Respondents shall establish communication and coordination procedures to facilitate the performance of the Work required by this Order with Shell, the Impacted Parties and the Agencies. Respondents shall implement these procedures immediately; however, the Agencies reserve the right to require different or modified procedures to be implemented. Within five (5) days from the Effective Date of this Order, all such procedures shall be prepared and submitted by Respondents to the Agencies for approval in accordance with Section VIII, (Approvals/Disapprovals) as Respondents' Communication and Coordination Plan (RCCP). The RCCP will specify the requirements and procedures by which Respondents will communicate with one another and with Shell, the Impacted Parties and with the Agencies, in performing the Work. The RCCP shall include at a minimum the following:
 - a. Communication Strategy: The RCCP shall specify how the Respondents' Project Coordinator will communicate and disseminate information relative to this Order with one another and with Shell.
 - b. Coordination of Efforts: The RCCP shall describe with specificity how the technical, financial, and administrative requirements of this Order are to be coordinated with Shell and distributed among and performed by Respondents.
7. To the extent that Shell is performing or has stated an intent to perform any or all of the Work required under this Order, Respondents shall make best efforts to coordinate with Shell. Best efforts to coordinate shall include at a minimum:

a. Communication in writing to Shell, with copies to the Agencies and Impacted Parties, within five (5) days of the Effective Date of this Order, as to Respondents' desire to comply with this Order and to participate in the performance of the Work, or in lieu of performance, to pay for the performance of the Work;

b. Submission to Shell, with copies to the Agencies and Impacted Parties, within five (5) days of the effective date of this Order, of a good-faith offer to perform the Work, in whole or in part, or in lieu of performance to pay for the Work, in whole or in part; and

c. Engaging in good-faith negotiations with Shell to perform, or in lieu of performance, to pay for the Work required by this Order, if Shell refuses the Respondents' initial offer.

8. To the extent that Shell is performing or has stated an intent to perform any or all of the Work required under this Order, Respondents shall make best efforts to participate in the performance of the Work with the Shell. Best efforts to participate shall include, in addition to the requirements set out elsewhere in this Order, at a minimum:

a. performance of the Work as agreed by any Respondent and Shell to be undertaken by any Respondent; and

b. payment of all amounts as agreed by any Respondent and Shell to be paid by a Respondent, if, in lieu of performance, a Respondent has offered to pay for the Work required by this Order, in whole or in part.

9. Each Respondent shall notify EPA in writing within five (5) days of the rejection, if any, by Shell of Respondent's offer to perform or, in lieu of performance, to pay for the Work.

10. The undertaking or completion of any requirement of this Order by any other person, with or without the participation of a Respondent, shall not relieve any Respondent of its obligation to perform each and every other requirement of this Order.

11. Any failure to perform, in whole or in part, any requirements of this Order by any other person with whom a

Respondent is coordinating or participating in the performance of such requirements shall not relieve any Respondent of its obligation to perform each and every requirement of this Order.

12. Upon request of EPA and subject to any claims of applicable privilege(s), each Respondent shall submit to EPA all documents in its possession, custody, or control relating to (1) any offer to perform or pay for, or (2) the performance of or payment for the Work required by this Order by any Respondent or non-Respondent to this Order.

13. EPA may seek civil penalties from each Respondent for each failure to comply with any of the requirements of this Order.

VII. NOTICES AND SUBMISSIONS

1. Whenever, under the terms of this Order, written notice is required to be given, or any document is required to be sent by one Party to another, it shall be provided as directed in this section. When Respondents are required to provide notice or submittals to EPA, they shall also provide a copy of the notice or submittal, in the same quantity and in the same manner as required for EPA, to the Regional Board's representatives, the Impacted Parties' representatives as listed below, and to Shell's representatives as listed below, except when different quantities or manner of notice are provided elsewhere in this Order or the SOW. Notice shall be provided to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other parties in writing. All notices and submissions shall be sent by either certified mail, return receipt requested, overnight mail or facsimile, and notice shall be effective upon receipt, unless otherwise provided herein.
2. With respect to any and all submissions to the Agencies required by this Order, including those required pursuant to the SOW, Respondents shall provide two hard copies and one electronic copy of each document to each of the following Project Coordinators at the addresses specified below (except that a total of 3 hard copies shall be provided to EPA), unless those Project Coordinators or their successors give notice of a change to the Respondents in writing.

Project Coordinators for Agencies and Impacted Parties

As to EPA:

(2 Copies)
Steven Linder, Project Coordinator
Greg Lovato, Alternate Project Coordinator
Office of Underground Storage Tanks (WST-8)
Waste Management Division
U.S. Environmental Protection Agency - Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901
Telephone: (415) 744-2036(Steven Linder)
Telephone: (415) 744-2112(Greg Lovato)
Facsimile: (415) 744-1026(Steven Linder)
Facsimile: (415) 744-2054(Greg Lovato)
E-Mail: linder.steven@epa.gov, lovato.greg@epa.gov

As to EPA Continued:

(1 Copy Only)
Walter Crone
Ninyo & Moore
9272 Jeronimo Road, Suite 123 A
Irvine, CA 92618-1914
E-Mail: wcrone@ninyoandmoore.com

As to the Regional Board:

David Bacharowski
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013
Telephone: (213) 576-6620
Facsimile: (213) 576-6700
E-Mail: DBACHARO@rb4.swrcb.ca.gov

As to the City of Santa Monica:

Gil Borboa
City of Santa Monica
1212 Fifth St. 3rd Floor
Santa Monica, CA 90401
Telephone: (310) 458-8230
Facsimile: (310) 393-6697
E-mail: gil-borboa@ci.santa-monica.ca.us

As to the Southern California Water Company:

Denise Kruger
Southern California Water Company
630 E. Foothill Blvd.
San Dimas, CA 91773
Telephone: (909) 394-3600
Facsimile: (909) 394-0827
E-mail: dlkruger@scwater.com

As to the Shell Respondents (Shell, Shell Products and Equilon):

Chuck Paine
Shell Oil Company
4482 Barranca Parkway
Suite 180-171
Irvine, CA 92604
Telephone: (949) 654-1275
Fax: (949) 654-1303
E-mail: cbpaineiii@shellus.com

Additional contact as to Equilon:

H. Brad Boschetto
Equiva Services, LLC
Carson Plant
20945 S. Wilmington Ave.
Carson, CA 90810-1039
Phone: (310) 816-2074
Fax: (310) 816-2356
E-mail: hbboschetto@equiva.com

Whenever, under the terms of this Order, EPA provides notice to the Respondents, EPA will direct this notice to the following

persons and addresses, unless the Respondents provide notice of a different person and/or address:

Mike Bauer
Chevron Products Company
1300 South Beach Boulevard
La Habra, CA 90632
Telephone: (562) 694-7969
Facsimile: (562) 694-7857
E-Mail: mkba@chevron.com

Respondents may jointly designate a successor representative.

3. With respect to all submissions and notices, including but not limited to notice of a change of Project Coordinator, notice of a delay in performance, notice of an endangerment, or notice of a failure to obtain access to property not owned or leased by Respondents, but excluding proposed workplans and technical reports prepared pursuant to the SOW, Respondents shall also provide written notice to the individuals at the addresses specified below (in addition to the individuals listed in subparagraph 2 above) unless the individuals listed below or their successors give written notice of a change to Respondents.

As to EPA:

Laurie Williams, Esq.
Office of Regional Counsel (ORC-3)
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105
Telephone: (415) 744-1387
Facsimile: (415) 744-1041
E-Mail: williams.laurie@epa.gov

Brad O'Brien, Esq.
Environmental Enforcement Division
U.S. Department of Justice
301 Howard Street
San Francisco, CA 94105
Telephone: (415) 744-6484
Facsimile: (415) 744-6476
E-Mail: brad.o'brien@usdoj.gov

As to the Regional Board:

Marleigh Wood, Esq.
State Water Resources Control Board
901 P Street
Sacramento, CA 95814
Telephone: (916) 657-2428
Facsimile: (916) 653-0428
E-Mail: MWOOD@exec.swrcb.ca.gov

Marilyn Levin, Esq.
Department of Justice
Office of the Attorney General
300 S. Spring Street, Suite 500
Los Angeles, CA 90013
Telephone: (213) 897-2612
Facsimile: (213) 897-2616
E-Mail: levinm@hdcdojnet.state.ca.us

As to the City of Santa Monica:

Joseph Lawrence, Esq.
Office of City Attorney
City of Santa Monica
1685 Main Street
Santa Monica, CA 90401
Telephone: (310) 458-8375
Facsimile: (310) 395-6727
E-Mail: Joe-Lawrence@CI.SANTA-MONICA.ca.us

Barry Groveman, Esq.
Proskauer, Rose, Goetz & Mendelsohn
2121 Avenue of the Stars, Suite 2700
Los Angeles, CA 90067-5010
Telephone: (310) 284-5667
Facsimile: (310) 557-2193
E-Mail: BGROVEMAN@Proskauer.com

As to the Southern California Water Company:

Robert Saperstein, Esq.

Hatch & Parent
21 East Carrillo Street
Santa Barbara, CA 93101-2782
Telephone: (805)963-7000
Facsimile: (805)865-4333
E-Mail: rob_saperstein@msn.com

As to the Shell Respondents:

Cynthia Burch
Munger, Tolles & Olsen
355 South Grand Avenue, 35th Floor
Los Angeles, CA 90071-1560
Telephone: (213) 683-9584
Facsimile: (213) 683-4084
E-Mail: burchcl@mto.com

4. EPA has been informed that some of the Respondents have designated Mike Bauer to act as Project Coordinator for Respondents and EPA will provide all correspondence and notices under this Order to Mike Bauer at the address listed above, unless Respondents provide a change of Project Coordinator and/or a new address and other contact information.
5. EPA has been informed that some of the Respondents have jointly designated the following attorney contact:

Jerry Ross
Pillsbury, Madison & Sutro
50 Fremont Street
San Francisco, CA 94105
Mailing Address:
P.O. Box 7880
San Francisco, CA 94120-7880
Telephone: (415) 983-1988
Facsimile: (415) 983-1200
E-Mail: ross_jw@pillsburylaw.com

EPA will provide all correspondence and notices under this Order to Mr. Ross at the address listed above, unless Respondents provide notice of a change of attorney contact, including new address and other contact information.

VIII. APPROVALS/DISAPPROVALS

1. After review of any deliverable, workplan, report, or other item which is required to be submitted for review and approval pursuant to this Order, EPA may: (a) approve the submission; (b) approve the submission with modifications; (c) disapprove the submission and direct Respondents to re-submit the document after incorporating EPA's comments; or (d) disapprove the submission and assume responsibility for performing all or any part of the response action. As used in this Order, the terms "approval by EPA," "EPA approval" or a similar term mean the actions described in clauses (a) or (b) of this paragraph. EPA may choose to provide its approval, modification or disapproval jointly with the Regional Board in a letter from the Agencies.
2. In the event of approval or approval with modifications by EPA, Respondents shall proceed to take all actions required by the plan, report, or other item, as approved or modified by EPA.
3. Upon receipt of a notice of disapproval or a request for a modification, Respondents shall, within twenty-one (21) days or such longer or shorter time as specified by EPA in its notice of disapproval or request for modification, correct the deficiencies and resubmit the plan, report, or other item for approval. Notwithstanding the notice of disapproval or approval with modifications, Respondents shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission.
4. In the event that a re-submitted plan, report or other item, or portion thereof is disapproved by EPA, EPA may again require Respondents to correct the deficiencies in accordance with the preceding paragraphs. EPA also retains the right to develop the plan, report or other item. Respondents shall implement any such plan, report or item as amended or developed by EPA.
5. If any submission is not approved by EPA after re-submission in accordance with the immediately preceding paragraph, Respondents shall be deemed in violation of the provision of this Order requiring Respondents to submit such plan, report or item.

6. Any deliverables, plans, reports or other item required by this Order to be submitted for EPA review and approval are, upon approval of EPA, incorporated into this Order and enforceable hereunder.

IX. ADDITIONAL RESPONSE ACTIVITIES

1. In the event EPA determines that additional response activities are necessary, in light of all relevant circumstances, EPA may notify Respondents that additional response activities are necessary.
2. Unless otherwise stated by EPA, within thirty (30) days of receipt of notice from EPA that additional response activities are necessary, Respondents shall submit for EPA approval a workplan for the additional response activities. The workplan shall conform to all applicable requirements of this Order. Upon EPA's approval of the workplan pursuant to Section VIII (Approvals/Disapprovals) of this Order, Respondents shall implement the workplan for additional response activities in accordance with the provisions and schedule contained therein.

X. ACCESS TO PROPERTY OWNED OR LEASED BY RESPONDENTS AND DATA/DOCUMENT AVAILABILITY

1. If any of the property at which the Work required pursuant to this Order is to be performed is owned or leased by Respondents, then Respondents shall provide access to EPA and the Regional Board and their authorized representatives, as well as to the Impacted Parties and their authorized representative, to observe and oversee the Work.

XI. ACCESS TO PROPERTY NOT OWNED OR LEASED BY RESPONDENTS

1. To the extent that any of the property at which the Work required pursuant to this Order is to be performed is not owned or controlled by Respondents, then Respondents will obtain, or use their best efforts to obtain, site access agreements from the present owner(s) and/or lessees, as the case may be, within sixty (60) days of the Effective Date of this Order if the need for site access is known as of the

Effective Date of the Order, or, if not known as of the Effective Date of this Order, within sixty (60) days of EPA approval of any work plan, report or document pursuant to this Order which requires Work on such property. "Best efforts" as used in this paragraph shall include, at a minimum, but shall not be limited to: (a) a certified letter from Respondents to the present owner(s) and/or lessee(s) of the property requesting access agreements to permit Respondents, EPA, the Regional Board and the Impacted Parties and their authorized representatives access to such property, and (b) the payment of reasonable compensation in consideration for such access, if the owner and/or lessee of such property have not been designated as a Potentially Responsible Party (PRP) for the Charnock MTBE and other gasoline constituent contamination by the Agencies or is no longer designated as a PRP. "Reasonable sums of money" means the fair market value of the right of access necessary to implement the requirements of this Order.

2. All site access agreements entered into pursuant to this Order shall provide access for EPA, its contractors and oversight officials, the State and its contractors, and the Impacted Parties and their contractors, as well as Respondents and Respondents' authorized representatives. Such agreements shall specify that Respondents and their contractors are not EPA's representatives or agents.
3. If access agreements are not obtained within the time set forth above, Respondents shall immediately notify EPA, in writing, of the failure to obtain access, specifying the efforts undertaken to obtain access. Subject to the United States' non-reviewable discretion, EPA may elect to use its legal authorities to obtain access for the Respondents, may perform those response actions with EPA staff and/or contractors at the property in question, or may terminate the Order if Respondents cannot obtain access agreements. If EPA performs those tasks or activities with staff and/or contractors and does not terminate the Order, Respondents shall perform all other activities not requiring access to that property, and shall reimburse EPA to the full extent allowed by law for all response costs incurred in performing such activities. Respondents shall integrate the results of any such tasks undertaken by EPA into its reports and deliverables.

4. Respondents shall allow EPA and its authorized representatives, the Regional Board and its representatives, and the Impacted Parties and their representatives to enter and freely move about any property needed for the Work at all reasonable times for the purpose of inspecting conditions, activities, the results of activities, records, operating logs, and contracts related to the Work; reviewing the progress of Respondents in carrying out the terms of this Order; conducting tests as EPA or its authorized representatives deem necessary; using a camera, sound recording device or other documentary type equipment; verifying the data submitted to EPA by Respondents; and copying all records, files, photographs, documents, sampling and monitoring data, and other writings related to work undertaken in carrying out this Order. Notwithstanding any provision of this Order, the United States and EPA retain all of their information gathering, inspection and access authorities and rights, including enforcement authorities related thereto.
5. No provision of this Order shall be interpreted as limiting or affecting Respondents' right to assert a business confidentiality claim, pursuant to 40 C.F.R. Part 2, Subpart B, covering all or part of the information submitted to EPA pursuant to the terms of this Order. If no such confidentiality claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to the Respondents. Respondents shall not assert any business confidentiality claim with regard to site conditions or any physical, sampling, monitoring or analytic data. Respondents shall maintain for the period during which the Order is in effect an index of any documents that Respondents claim contain confidential business information. The index shall contain, for each document, the date, author, addresses, and subject of the document as well as the pages on which any information claimed to be confidential business information appears. Upon written request from EPA, Respondents shall submit a copy of the index to EPA.

XII. ENDANGERMENT AND EMERGENCY RESPONSE

1. In the event Respondents, or any of them, identify a current or immediate threat to human health and the environment,

Respondent or Respondents, as the case may be, shall immediately notify the EPA Project Coordinator (or his alternate if not available) by telephone. If neither of these persons are available, Respondent or Respondents shall immediately notify the Chief, Office of Underground Storage Tanks at (415) 744-2079, and the EPA Region IX Emergency Response Section at (415) 744-2000. Simultaneous notification shall be made to the Regional Board's Project Manager by telephone. In addition to the required telephonic notice, written notification shall be made to EPA within twenty-four (24) hours of first obtaining knowledge of the threat, summarizing the immediacy and magnitude of the current or immediate threat to human health and the environment.

2. Respondents shall take immediate action to prevent, abate, or minimize the threat in consultation with EPA's Project Coordinator and in accordance with all applicable provisions of this Order, including but not limited to the Health and Safety Plan. Respondent shall thereafter submit for EPA approval, as soon as possible but no later than five (5) days after identification of the threat, a plan to mitigate the threat. EPA will approve or modify the plan, and Respondents shall implement the plan as approved or modified by EPA. In the event that Respondent or Respondents fail to take appropriate response action as required by this Section, and EPA takes that action instead, Respondent or Respondents shall reimburse EPA for all costs of the response action to the full extent allowed by law.
3. If EPA determines that any action or occurrence during the performance of the Work causes or threatens to cause a release or disposal of hazardous substances, pollutants or contaminants, regulated substances or hazardous or solid wastes which may present an imminent and substantial endangerment to the public health or welfare or the environment, EPA may direct Respondents to undertake any action EPA determines is necessary to abate such disposal or release or threatened release and/or direct Respondents to cease activities Respondents are then undertaking pursuant to this Order for such time as may be needed to abate any such disposal or release or threatened release.
4. Nothing in this Section shall be deemed to limit any authority of the United States to take, direct or order all

appropriate action to protect human health and the environment or to prevent, abate or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, regulated substances or hazardous or solid wastes.

XIII. RECORD PRESERVATION

1. Respondents shall provide to EPA upon request copies of all documents and information within their possession and/or control or that of their contractors, employees or agents relating to activities required in connection with the Work or to the implementation of this Order, including but not limited to sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Upon request by EPA, Respondents shall also make available to EPA for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.
2. Until ten (10) years after termination of this Order, each Respondent shall preserve and retain all records and documents in Respondent's possession or control, including the documents in the possession or control of Respondent's contractors, employees or agents on and after the Effective Date of this Order that relate in any manner to the Work, including but not limited to records, documents or other information relating to its potential liability with regard to the Work. At the conclusion of this document retention period, each Respondent shall notify EPA at least ninety (90) calendar days prior to the destruction of any such records or documents, and upon request by EPA, shall deliver any such records or documents to EPA.
3. Until ten (10) years after termination of this Order, each Respondent shall preserve, and shall instruct its contractors and agents to preserve, all documents, records, and information of whatever kind, nature or description relating to the performance of the Work. Upon the conclusion of this document retention period, each Respondent shall notify the EPA at least ninety (90) days prior to the destruction of any such records, documents or

information, and, upon request of the EPA, shall deliver all such documents, records and information to EPA.

XIV. PROJECT COORDINATORS

1. Within ten (10) days after the Effective Date of this Order, Respondents shall jointly designate a Project Coordinator for compliance with this Order and shall submit the Project Coordinator's name, address, telephone number, facsimile number and e-mail address to EPA for review and approval. Respondents' Project Coordinator shall be responsible for overseeing Respondents' implementation of this Order. If Respondents wish to change their Project Coordinator, Respondents shall provide written notice to EPA, five (5) days prior to changing the Project Coordinator, of the name and qualifications of the new Project Coordinator.
2. EPA hereby designates Steven Linder as the EPA Project Coordinator, and Greg Lovato as the EPA Alternate Project Coordinator. EPA has the unreviewable right to change its Project Coordinator and/or its Alternate Project Coordinator. If EPA changes its Project Coordinator or Alternate Project Coordinator, EPA will inform Respondents in writing of the name, address, and telephone number of the new Project Coordinator or Alternate Project Coordinator.
3. The Project Coordinators will be responsible for overseeing the implementation of the Work. The EPA Project Coordinator will be EPA's primary designated representative with respect to the Work for this purpose. To the maximum extent possible, all communications, whether written or oral, between Respondents and EPA concerning the Work to be performed pursuant to this Order shall be directed through the Project Coordinators.

XV. QUALITY ASSURANCE, SAMPLING, DATA ANALYSIS AND PRIOR NOTICE OF FIELD ACTIVITIES

1. Respondents shall comply with the EPA quality assurance and quality control requirements, except to the extent that they are modified by specific requirements pursuant to this

Order. To provide quality assurance and maintain quality control, Respondents shall:

- a. Ensure that the laboratory used by Respondents for analyses performs according to a method or methods deemed satisfactory to EPA and submits all protocols to be used for analyses to EPA as part of the sampling and analysis plan described in subparagraph c., below. If methods other than those in SW-846 are proposed for use, Respondents shall submit all proposed protocols accompanied by an appropriate justification and a demonstration of the effectiveness and applicability of the proposed alternative to EPA for approval at least thirty (30) days prior to the commencement of analysis and shall obtain EPA approval prior to the use of such protocols.
 - b. Ensure that EPA personnel and EPA's authorized representatives are allowed access to the laboratory and personnel utilized by Respondents for analyses.
 - c. Prepare and submit a sampling and analysis plan for collection of data, based on the guidance listed above, no less than thirty (30) days prior to commencing field sampling activities, or, in the case of field activities to be performed in connection with any work plan, at the time of the submission of such work plan to EPA for review and approval.
2. Notify EPA, the Regional Board and the Impacted Parties in writing at least 5 days before engaging in any field activities pursuant to this Order. At the request of EPA, Respondents shall provide or allow EPA, the Regional Board, the Impacted Parties or their authorized representatives to draw split or duplicate samples of all samples collected by Respondents with regard to this Work or pursuant to this Order. Nothing in this Order shall limit or otherwise affect EPA's authority to draw samples pursuant to applicable law.
 3. Respondents shall submit to EPA, the Regional Board and the Impacted Parties the results of all sampling and/or tests and other data generated by, or on behalf of, Respondents, in accordance with the requirements of this Order, the SOW and any workplans approved under this Order.

XVI. DELAY IN PERFORMANCE

1. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondents under the terms of this paragraph shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondents' obligations to fully perform all obligations under the terms and conditions of this Order.
2. Respondents shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to EPA's Project Coordinator or Alternate Project Coordinator within forty-eight (48) hours after any Respondent or Respondents first knew or should have known that a delay might occur. Respondent or Respondents shall adopt all reasonable measures to avoid or minimize any such delay. Within five (5) business days after notifying EPA by telephone, EPA shall be provided with written notification fully describing the nature of the delay, any justification for the delay, any reason why Respondent(s) should not be held strictly accountable for failing to comply with any relevant requirements of this Order, the measures planned and taken to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effects of the delay. Increased costs or expenses associated with implementation of the activities called for in this Order are not a justification for any delay in performance.

XVII. RESERVATION OF RIGHTS, NON-WAIVER, COMPLIANCE WITH LAWS AND ENFORCEMENT

1. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights, remedies and defenses, both legal and equitable, including the right to disapprove Work performed by Respondents pursuant to this Order, to perform any portion of the Work required herein and to require that Respondents perform tasks in addition to those required by this Order. This reservation of rights also includes the right to require additional investigation, characterization, feasibility studies and/or response or corrective actions pursuant to RCRA, the Safe Drinking Water Act (SDWA) or

other applicable legal authorities. EPA reserves its right to seek reimbursement from Respondents for costs incurred by the United States to the full extent allowed by law. This Order shall not be construed as a covenant not to sue, release, waiver or limitation of any rights, remedies, powers or authorities, civil or criminal, which EPA has under RCRA, SDWA, or any other statutory, regulatory or common law enforcement authority of the United States.

2. EPA further reserves all of its statutory and regulatory powers, authorities, rights and remedies, both legal and equitable, which may pertain to Respondents' failure to comply with any of the requirements of this Order, including without limitation, the assessment of penalties under Sections 7003 and 9006 of RCRA, 42 U.S.C. Sections 6973 and 6991e. Nothing in this Order shall limit or preclude EPA from taking any additional enforcement actions, including modification of this Order or issuance of additional Orders, or from requiring Respondents in the future to perform additional activities pursuant to Subtitle I of RCRA, 42 U.S.C. Section 6991 et seq., and the regulations promulgated thereunder, or any other applicable law or regulation and/or from taking additional actions as EPA may deem necessary at the Respondents' Source Sites, the Charnock Wellfields, or at any other facility. EPA reserves its right to seek reimbursement from Respondents for such costs incurred by the United States to the full extent allowed by law, including, but not limited to a cost recovery action under RCRA, including Section 9003(h) of RCRA, 42 U.S.C. Section 6991b(h) of RCRA.
3. All activities undertaken by Respondents pursuant to this Order shall be performed in accordance with the requirements of all applicable federal, state and local laws and regulations. Compliance by Respondents with the terms of this Order shall not relieve Respondents of their obligations to comply with RCRA or any other applicable federal or state laws and regulations.
4. This Order is not, and shall not be construed as a permit issued pursuant to any federal or state statute or regulation. This Order does not relieve Respondents of any obligation to obtain and comply with any federal, state or local permit. Where any portion of the Work requires a federal, state or local permit or approval, Respondents

shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.

5. Notwithstanding any provision of this Order, the United States hereby retains all of its information gathering, inspection and enforcement authorities and rights under Sections 3007, 7003 and 9005 of RCRA, 42 U.S.C. Section 6927, 6973 and 6991d, Section 1431 of SDWA, 42 U.S.C. Section 300i, and any other applicable statutes or regulations.
6. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership, entity or corporation for any liability such person, firm, partnership, entity or corporation may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, regulated substances, pollutants, contaminants or solid wastes generated, transported or handled in connection with the Work.
7. If a court issues an order that invalidates or stays any provision of this Order or finds that Respondents have sufficient cause not to comply with one or more provisions of this Order, Respondents shall remain bound to comply with all provisions of this Order not invalidated by the court's order.

XVIII. LIABILITY INSURANCE

1. At least seven (7) days prior to commencing any Work required pursuant to this Order (other than making Water Replacement Payments or performing reporting, communication or coordination activities), each Respondent shall submit to EPA a certification that Respondent or its contractors and subcontractors have adequate insurance coverage or have indemnification for liabilities for injuries or damages to persons or property which may result from the activities to be conducted by or on behalf of Respondent pursuant to this Order. Comprehensive general liability insurance coverage or indemnification shall be at least in the amount of two million dollars (\$2,000,000) in annual aggregate coverage. Each Respondent shall ensure that such insurance or indemnification is maintained for the duration of the Work required by this Order.

XIX. OPPORTUNITY TO CONFER

1. Respondent(s) may, within ten (10) days after the date this Order is signed, request a conference with EPA to discuss this Order. If requested, the conference shall occur at a time and location to be selected by the Agencies in consultation with Respondents.
2. The purpose and scope of the conference shall be limited to issues involving the implementation of the Work and any other response actions required by this Order and the extent to which Respondents intend to comply with this Order. This conference is not an evidentiary hearing, and does not constitute a proceeding to challenge this Order. It does not give Respondents a right to seek review of this Order, or to seek resolution of potential liability, and no official stenographic record of the conference will be made. At any conference held pursuant to Respondents' request, each Respondent may appear in person or by an attorney or other representative.

3. Requests for a conference must be made by telephone ((415) 744-1387) followed by written confirmation mailed that day to Laurie Williams, Assistant Regional Counsel (ORC-3), at United States Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105, or by facsimile to (415) 744-1041.

XX. NOTICE OF INTENTION TO COMPLY

1. Each Respondent shall provide, not later than the Effective Date of this Order, written notice to Laurie Williams, Assistant Regional Counsel, at the address set forth above, stating whether it will comply with the terms of this Order. If each Respondent does not unequivocally commit to perform the Work required by this Order, then that Respondent shall be deemed to have violated this Order and to have failed or refused to comply with this Order. The absence of a response by EPA to the notice required by this paragraph shall not be deemed to be acceptance of any assertions that Respondents may make in their respective notices.

XXI. PENALTIES FOR NON-COMPLIANCE

1. Section 7003(b) of RCRA, 42 U.S.C. Section 6973(b), provides that "[a]ny person who willfully violates, or fails or refuses to comply with, any Order of the Administrator under [RCRA Section 7003(a)] may, in an action brought in the appropriate United States district court to enforce such order, be fined not more than \$5,000 for each day in which such violation occurs or such failure to comply continues." This amount is subject to the increase provided for in Public Law 101-410, enacted October 5, 1990; 104 Stat. 890, as amended by the Debt Collection Improvement Act of 1996 (31 U.S.C. 3701). See 61 Fed. Reg. 69359 (December 31, 1996)(Civil Monetary Penalty Inflation Adjustment Rule; Final Rule); 40 C.F.R. Part 19.

XXII. NO FINAL AGENCY ACTION

1. Notwithstanding any other provision of this Order, no action or decision by EPA pursuant to this Order, including without limitation, decisions of the Regional Administrator, the

Director of the Waste Management Division or her successor, or any authorized representative of EPA, shall constitute final agency action giving rise to any rights of judicial review prior to EPA's initiation of a judicial action for violation of this Order, which may include an action for penalties and/or an action to compel Respondents' compliance with the terms and conditions of this Order. In any action brought by EPA to enforce this Order, Respondents shall bear the burden of proving that EPA's action was arbitrary and capricious or not in accordance with law.

XXIII. EFFECTIVE DATE AND COMPUTATION OF TIME

1. This Order shall be effective without further notice thirty (30) days after the Order is signed by the Director of the Waste Management Division ("Effective Date"). All times for performance of ordered activities shall be calculated from this Effective Date, unless otherwise specified.

XXIV. MODIFICATION AND INTERPRETATION

1. This Order may be amended or modified by EPA. Such amendment shall be in writing and shall have as its effective date that date which is ten (10) days after the date the amendment or modification is signed by the Director of the Waste Management Division, unless otherwise specified therein.
2. The EPA Project Coordinator may agree to changes in the scheduling of Work. Any such changes must be requested in writing by Respondents and be approved in writing by the EPA Project Coordinator.
3. No informal advice, guidance, suggestions or comments by EPA regarding reports, plans, specifications, schedules and any other writing submitted by Respondents will be construed as an amendment or modification of this Order.

4. The headings in this Order are for convenience of reference only and shall not affect interpretation of this Order.

IT IS SO ORDERED.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX

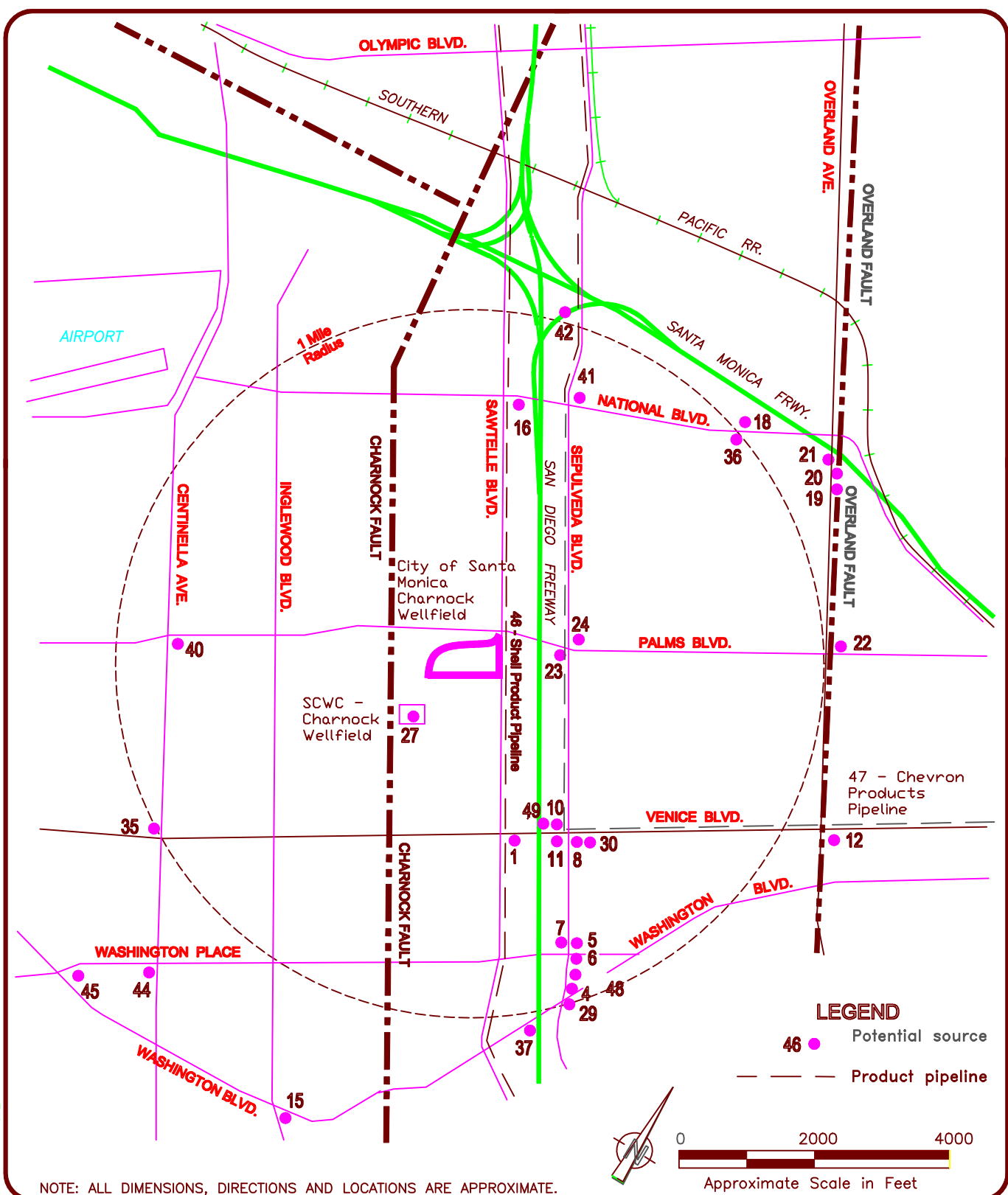
By: *Original signed by:*

DATED: March 9, 2000

JULIE ANDERSON
Director
Waste Management Division
EPA REGION IX

FIGURE 1

109342



Los Angeles Regional
Water Quality Control
Board / U.S.
Environmental
Protection Agency



SITE PLAN

CHARNOCK WELL FIELD VICINITY
SHOWING PRP REGION AND
LOCATION OF POTENTIAL SOURCES
SANTA MONICA, CALIFORNIA

PROJECT NO.

DATE

FIGURE

02/00

1

ATTACHMENT A

**ATTACHMENT A
SCOPE OF WORK
FOR
PARTICIPATION AND COOPERATION IN WATER REPLACEMENT
CHARNOCK SUB-BASIN MTBE CONTAMINATION**

**ORDER TO CHEVRON, EXXON, ARCO, CONOCO, DOUGLAS,
KAYO, UNOCAL, MOBIL, TOSCO, THRIFTY, BEST, NISHIDA AND HLW**

INTRODUCTION

This Scope of Work is provided as an attachment to an Order directed to Respondents, Chevron USA, Inc., Exxon Mobil Corporation, Atlantic Richfield Company (d.b.a. Arco), Conoco, Inc., Douglas Oil Company of California, Kayo Oil Company, Unocal Corporation, Mobil Oil Corporation, Tosco Corporation, Thrifty Oil Company, Best California Gas, Ltd., Kazuho Nishida and HLW Corporation (collectively "Respondents"), by the United States Environmental Protection Agency ("EPA"), Region 9 (Administrative Order U.S. EPA Docket No. RCRA 7003-09-2000-0002) ("Order").

The purpose of this Scope of Work, and the Order of which it is a part, is to require Respondents to provide Water Replacement to the City of Santa Monica and the Southern California Water Company (collectively "the Impacted Parties") for a period of four (4) years and eight (8) months beginning on May 7, 2000. Respondents must provide this Water Replacement in cooperation with the parties to EPA's Order issued on September 22, 1999, Docket No. RCRA-7003-09-99-0007 ("the Shell Order"), as detailed in Section VI (the Work to be Performed and Participation and Cooperation) of the Order of which this Scope of Work is a part. As described in greater detail in the findings of EPA's Order, Water Replacement is needed because of the impact of MTBE and other gasoline constituent contamination, to which Respondents have contributed, on the drinking water supplies of the Impacted Parties.

DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Scope of Work, and the Order of which it is a part, shall have the meanings which are assigned to them in RCRA and in the California Water Code. Except where otherwise noted, the definitions provided in EPA's Order will apply to this Scope of Work, as modified and/or supplemented by the following definitions:

- (1) "Agencies" shall mean either (a) EPA or (b) EPA and the California Regional Water Quality Control Board, Los Angeles Region ("Regional Board"), acting jointly.
- (2) "Impacted Parties" shall mean the City of Santa Monica ("City") and the Southern California Water Company ("SCWC").
- (3) "Monthly Payment Amounts" shall mean the total amount of the payments to be made to each of the Impacted Parties each month beginning May 7, 2000, if Respondents comply with the Agencies' Orders by providing Water Replacement Payments.

- (4) "RCRA" shall mean the Resource Conservation and Recovery Act, as amended (also referred to as the Solid Waste Disposal Act), 42 U.S.C. Sections 6901, et seq.
- (5) "Release" shall mean discharge(s) or disposal as those terms are used in RCRA and the California Water Code.
- (6) "Respondents" shall mean Chevron USA, Inc., Exxon Mobil Corporation, Atlantic Richfield Company (d.b.a. ARCO), Conoco, Inc., Douglas Oil Company of California, Kayo Oil Company, Unocal Corporation, Mobil Oil Corporation, Tosco Corporation, Thrifty Oil Company, Best California Gas, Ltd., Kazuho Nishida and HLW Corporation.
- (7) "Water Replacement" shall mean:
- (a) the provision of water to the Impacted Parties which must be
 - (i) of sufficient water quality to meet all applicable federal, state and local water quality requirements, including all permit requirements;
 - (ii) of water quality compatible with the Impacted Parties' existing water supply systems' requirements and operational needs, and
 - (iii) the quantity of water which was being served by the Impacted Parties to their customers from their Charnock Sub-Basin Wellfields prior to shutdowns related to the discovery of MTBE contamination at the City's wellfield, plus any increase in production which the Impacted Parties can demonstrate could have been and would have been extracted from the Charnock Sub-Basin beyond the quantity being extracted at the time of discovery of the MTBE and other gasoline constituent contamination, but for the discovery of the MTBE and other gasoline constituent contamination; or
 - (b) provision of funding to the Impacted Parties sufficient to pay for all costs associated with the purchase and use of the water described in subparagraph (a) of this paragraph, including any additional operational costs.
- (8) "Water Replacement Quantities" shall mean the specific quantities of Water Replacement that the Agencies require Respondents to supply to each of the Impacted Parties, in accordance with the definition of Water Replacement provided above.
- (9) "Water Replacement Payments" shall mean money that Respondents may pay to the Impacted Parties in lieu of the provision of Water Replacement.

TASK 1 – PROVISION OF WATER REPLACEMENT AND WATER REPLACEMENT PAYMENTS

The provision of Water Replacement pursuant to this task must be provided in cooperation with the parties to the Shell Order, as detailed in Section VI (the Work to be Performed and Participation and Cooperation) of the Order of which this Scope of Work is a part.

- (1) Provision of Water Replacement (Time Period/Uninterrupted Service): Respondents are required to provide Water Replacement to the City of Santa Monica and to the Southern California Water Company for a period of 4 years and 8 months beginning on May 7, 2000. Water Replacement must be provided in a manner that allows the uninterrupted service of drinking water to the Impacted Parties' customers.

- (2) Water Replacement Quantities: Respondents are jointly responsible with the parties to EPA Order RCRA-7003-09-99-0007 to provide no less than the following Water Replacement Quantities to the Impacted Parties, unless a different amount is approved or ordered by the Agencies:

City of Santa Monica: 6320 acre feet per year

Southern California Water Company: 577 acre feet per year

Nothing in this Scope of Work, or in the Orders of which it is a part, is intended to be a determination of relative property rights of the City of Santa Monica or the Southern California Water Company to the groundwater in the Charnock Sub-Basin, or otherwise influence, prejudice or interfere with the resolution of the City of Santa Monica's and Southern California Water Company's claims regarding their respective water rights in the Charnock Sub-Basin. The Water Replacement Quantities included in this Scope of Work are **not** the result of a legal determination, based on applicable laws governing property rights to groundwater, of the Impacted Parties' relative rights to the groundwater in the Charnock Sub-Basin. Rather, the Water Replacement Quantities are simply intended to preserve the status quo at the time of wellfield shutdowns, by providing the Impacted Parties with Water Replacement in the quantities extracted by their respective Charnock Wellfields during the last complete calendar year of pumping (1995). Nor is this Scope of Work, or the Orders of which it is a part, intended in any way to limit any rights the Impacted Parties may have to seek additional compensation beyond the provisions of this Scope of Work, or the Orders of which it is a part from parties, including but not limited to Respondents, who have contributed to contamination of the Charnock Sub-Basin.

- (3) Use of Treated Water from the Charnock Sub-Basin: Respondents may only use treated water from the Charnock Sub-Basin to comply with their obligation to provide Water Replacement if the operation of the treatment plant and quality of the resulting treated water comply with all federal, state and local requirements applicable to public water supply systems, including applicable permit conditions.
- (4) Water Replacement Payments: Respondents may provide the Impacted Parties with Water Replacement Payments, in lieu of Water Replacement. Respondents shall pay each Impacted Party all costs associated with the required Water Replacement Quantity, which includes all costs associated with acquisition, use and operational requirements of such Water Replacement Quantity above the costs previously incurred by the Impacted Parties to acquire and use that quantity of water from their Charnock Wellfields. Respondents shall make payments to each Impacted Party of one twelfth of the annual cost of Water Replacement by the 7th of each month, beginning with a payment due by May 7, 2000. Payments shall be provided by check to the following parties and addresses in the specified Monthly Payment Amounts:

As to the City of Santa Monica:

Make checks payable to: City of Santa Monica

Mail checks to:

City of Santa Monica

Director, Environmental and Public Works Management

1685 Main Street

Santa Monica, California 90401

Monthly Payment Amount: \$249,757.56

As to the Southern California Water Company:

Make checks payable to: Southern California Water Company
Mail checks to:
Regional Vice President, Region II
Southern California Water Company
1920 West Corporate Water
Anaheim, California 92801
Monthly Payment Amount: \$21,974.08

(5) Adjustments: Respondents may seek an adjustment in the Water Replacement Quantities and/or the Monthly Payment Amounts that they are supplying to the Impacted Parties. If Respondents believe that an adjustment should be made, Respondents shall submit a Request for Adjustment to the Agencies, detailing the reasons that the Agencies' current requirements for Water Replacement Quantities and/or Monthly Payment Amounts should be changed. The Agencies may also adjust the Water Replacement Quantities and/or Monthly Payment Amounts, if the Agencies determine, based on information received from the Impacted Parties or any other source, that an adjustment is necessary to insure that the Quantities and/or Amounts provided are appropriate. In the event of a request from the Respondents or Impacted Parties for such a change, or a determination by the Agencies based on other information, the Agencies will allow Respondents and the Impacted Parties an opportunity to comment on the Agencies' proposed change in Water Replacement Quantities and/or Monthly Payment Amounts. Such changes shall be at the Agencies' sole discretion.

TASK 2 – WORKPLAN

By May 7, 2000, Respondents shall present the Agencies with a workplan for the provision of Water Replacement to the Impacted Parties. This Water Replacement Workplan shall be in addition to the Respondents' Communication and Coordination Plan required pursuant to Section VI (Work to Be Performed and Participation and Cooperation) of the Order. At a minimum, the Water Replacement Workplan shall include:

- (a) the method by which the required Water Replacement Quantities will be provided to the Impacted Parties;
- (b) an evaluation of the compatibility of the Water Replacement with the Impacted Parties' water systems;
- (c) an evaluation of the reliability of the source of the Water Replacement;
- (d) if Respondents will comply by providing Water Replacement Payments, Respondents shall so specify;
- (e) the Respondents' plans for coordination with the parties to the Shell Order and with the Impacted Parties; and
- (f) any problems anticipated in the provision of the required Water Replacement Quantities.

As stated below, in the section of this Scope of Work describing approvals, the Water Replacement Workplan proposed by Respondents shall be subject to approval, disapproval or approval with modifications by the Agencies.

Respondents shall begin implementation of the approved Water Replacement Workplan immediately upon receipt of the Agencies' approval, or approval with modifications, consistent

with the approved schedule contained in the Water Replacement Workplan, the requirements of this Scope of Work and the Orders of which it is a part.

TASK 3- REPORTING

Beginning on July 7, 2000 and quarterly, on the schedule provided below, thereafter, Respondents shall provide the Agencies with a quarterly report detailing:

- (1) The methods by which Respondents are complying with the Order, and by which Respondents intend to comply in the future;
- (2) The Water Replacement Quantities and Water Replacement Payments that Respondents have provided to the Impacted Parties during the prior quarter and the quantity or payments which Respondents expect to provide in the upcoming quarter;
- (3) If more than one source of water is involved, the volumes from each such source;
- (4) Any problems encountered in supplying the Water Replacement Quantities or Water Replacement Payments, and the actions proposed by Respondents to address these problems; and
- (5) Any problems anticipated during the upcoming reporting period, and the actions proposed by Respondents to address these problems.

The reporting periods and due dates applicable to the quarterly reports required by this task shall be as follows:

<u>Reporting Period</u>	<u>Quarterly Report Due Date</u>
April 1 – June 30	July 7
July 1 – September 30	October 7
October 1 – December 31	January 7
January 1 – March 31	April 7

TASK 4 – CERTIFICATION OF COMPLETION

When Respondents believe that they have completed all requirements of this Scope of Work and of the Order of which this Scope of Work is a part, including the participation and cooperation requirements of Section VI (Work to Be Performed and Participation and Cooperation) of the Order, Respondents shall submit a report certifying completion of these requirements. Each Respondent shall provide a certification by a responsible corporate officer under penalty of perjury.

APPROVAL, MODIFICATION OR DISAPPROVAL

All submittals required pursuant to this Scope of Work shall be subject to the Agencies' approval, approval with modifications, or disapproval, consistent with the Order of which this Scope of Work is a part.

ATTACHMENT B

CITY OF SANTA MONICA HISTORIC PRODUCTION

YEAR	DEMAND	TOTAL Acres	MWD Acres	45 % of Demand	Net Chamcock Basin Extraction	PERCENT OF DEMAND (EXCLUDES AMOUNTS INJECTED)	CH-9	CH-12	CH-13	CH-14	CH-15	CH-16	CH-18	CH-19	TOTAL CHAMCOCK	PERCENT OF DEMAND
FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET
1875	16,929	9,204	7,618	5,175	33%	56	1,043	1,761	315	2,286	-	-	-	-	5,473	32%
1876	17,131	9,701	7,708	4,319	31%	-	957	2,234	285	1,562	-	-	-	-	5,037	29%
1877	14,448	7,186	6,501	5,354	37%	-	1,654	2,275	1,306	119	-	-	-	-	5,354	37%
1878	14,758	10,543	6,641	1,881	25%	-	892	1,118	-	1,225	-	-	-	-	3,235	22%
1879	14,799	9,254	6,860	1,921	29%	-	786	1,328	-	1,458	-	-	-	-	3,554	24%
1880	16,292	10,482	7,331	2,425	30%	-	1,102	1,573	-	1,678	-	-	-	-	4,353	27%
1881	17,251	11,429	7,763	4,063	33%	-	1,412	2,046	-	1,880	-	-	-	-	5,336	31%
1882	17,198	9,838	7,740	3,888	32%	-	999	1,535	-	1,226	1,390	-	-	-	5,150	30%
1883	16,951	8,275	7,828	3,852	39%	-	989	858	-	1,229	2,427	-	-	-	5,504	32%
1884	17,764	8,404	7,984	4,980	37%	-	1,205	1,847	-	1,177	1,598	342	-	-	6,166	35%
1885	16,386	7,685	7,374	5,428	33%	-	986	1,835	-	850	1,642	965	-	-	5,428	35%
1886	18,762	9,242	8,443	5,446	37%	-	678	842	-	1,836	1,770	2,458	-	-	6,598	35%
1887	18,371	8,882	8,267	5,362	46%	-	1,248	982	-	1,462	1,943	2,340	-	-	7,510	41%
1888	18,628	9,121	8,382	7,389	46%	-	934	982	-	1,624	2,132	2,084	-	-	8,184	44%
1889	16,755	10,613	8,440	7,093	38%	-	-	1,252	-	1,624	2,132	2,084	-	-	7,093	38%
1890	16,802	11,207	7,561	4,737	28%	-	-	576	-	1,241	1,173	1,748	-	-	4,737	28%
1891	12,997	7,404	6,849	4,788	37%	-	-	1,114	-	873	1,061	1,940	-	-	4,788	37%
1892	13,473	5,613	6,063	6,483	48%	-	-	1,543	-	1,399	743	2,560	237	-	6,483	48%
1893	15,557	6,148	7,000	8,150	40%	-	-	1,787	-	557	1,677	1,653	476	-	6,150	40%
1894	14,400	4,952	6,480	5,803	41%	-	-	1,155	-	1,421	977	1,694	657	-	5,903	41%
1895	14,417	4,380	6,488	6,320	44%	-	-	1,457	-	1,174	1,222	978	1,488	-	6,320	44%
1896	15,042	9,274	6,769	2,355	16%	-	-	392	-	595	417	489	483	-	2,355	16%
1897	14,889	12,068	6,700	-	0%	-	-	-	-	-	-	-	-	-	-	0%
1898	14,061	-	6,327	-	0%	-	-	-	-	-	-	-	-	-	-	0%
1899	-	-	-	-	#DIV/0!	-	-	-	-	-	-	-	-	-	-	#DIV/0!
2000	-	-	-	-	#DIV/0!	-	-	-	-	-	-	-	-	-	-	#DIV/0!
Average	16,086	8,881	7,239	-	-	-	-	-	-	-	-	-	-	-	-	-

9999999999 H₂O•R¹ - Water Resources & Remediation Consultants 99999999999

653 East Middle Street, West Covina CA 91790, Tel (626) 917-7747, Fax (626) 917-7847, E-Mail mapper3d@aol.com

Laurie Williams, Esq.

August 26, 1999

Page 3

Southern California Water Company - Recent Production History - Charnock Wells 9 and 10													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
1990	0	.3	0	.2	.1	.3	.1	.2	1.4	7.4	8.4	0	18.4
1991	.4	1.1	.4	4.5	7.7	46.1	45.5	41	41.2	39	30.4	31.5	289
1992	7.7	1.9	.5	.3	1.7	.3	.8	1.4	.8	.7	3.8	0	19.9
1993	0	0	0	0	0	0	0	0	3.9	.6	.5	0	5
1994	.2	2.2	7.5	0	7.5	17.6	24.3	17.1	12.8	9.9	7.7	31.4	138
1995	24.5	26.1	34.3	33.5	34	83.9	18.3	61.3	78.5	59.8	59.4	63.1	577
1996	75.3	47.2	58.6	54	56.3	54	113.3	55.7	68.1	7.9	.3	0	591

ATTACHMENT C

Cost of Alternative Water For Santa Monica Resulting From MTBE Contamination

Metropolitan Water District of Southern California (MWD)

	Monthly	Annual
Monthly Average Readiness To Serve Charge Prior to MTBE Impact ¹	\$ 14,777.14	\$ 177,325.68
Monthly Average Readiness To Serve Charge After MTBE Impact ²	\$ 22,070.50	\$ 264,846.00
Incremental Cost	\$ 7,293.36	\$ 87,520.32
 Santa Monica Average Demand (Acre-Feet)	 1,206	 14,475
 Incremental Readiness to Serve Charge Per Acre-Foot based on total MWD Water Purchased (Annual Average of 14, 475 Acre-Feet)	 \$ 6.05	
 Incremental Readiness to Serve Charge Per Acre-foot based on 6,500 Acre-Feet Replacement Water	 \$ 13.46	
MWD Water Treated Water Cost Per Acre-Foot	\$ 431.00	
Total Incremental Cost of MWD Water Per Acre-Foot	\$ 444.46	

Operations Costs due to Chloramines in MWD Water

Weekly Manual Chlorination Riviera Reservoir

12 Manhours Per Week or 624 Man Hours Per Year @ \$44.32/Hour	\$ 27,655.68
2 Hours Per Week or 104 Hours Per Year Analytical @ 48.70/Hour	\$ 5,064.80
Calcium Hypochlorite: 135 Pounds Per Week or 7,020 Pounds Per Year	\$ 11,583.00
Sub-Total Chlorination Per Year	\$ 44,303.48

Riviera Reservoir Modifications

Modify Existing Inlet Structure	\$ 206,400.00
Flow Proportioning Gas Chlorinator	\$ 33,000.00
Recirculation Pumping System	\$ 41,800.00
Sub-Total Riviera Modifications	\$ 281,200.00

Well Maintenance

Sampling/Analyses (Per Year)	\$ 13,800.00
Well Maintenance (Video Inspection, Redevelopment)	\$ 130,000.00
Sub-Total Well Maintenance	\$ 143,800.00

Summary

Cost of MWD Water Per Acre-Foot	\$ 444.46
Annual Maintenance Costs (Riviera Reservoir)	\$ 44,303.48
Annual Maintenance Costs (Production Wells)	\$ 143,800.00
Capital Cost Riviera Modifications	\$ 281,200.00

Notes: ¹ Based on the Average Readiness to Serve Charge incurred on 1996

² Based on Current Readiness to Serve Charge

9/1/99

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KEVIN J. NEESE
1958 - 1998

OF COUNSEL
CHRIS FRAHM

OUR FILE # 6774.50
DIRECT DIAL # (805) 882-1417
INTERNET: RSaperstein
@HatchParent.com

August 26, 1999

Via Facsimile

Laurie Williams, Esq.
Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

RE: Charnock Replacement Water Administrative Order

Dear Ms. Williams:

In response to your request, I am providing information relevant to the Replacement Water Order on behalf of Southern California Water Company (SCWC).

First, attached to this correspondence is a table summarizing SCWC's recent production history from the Charnock Sub-basin. As the table shows, the full year production for 1995 was 577 acre feet.

Second, given the current cost of replacement water and SCWC's estimated production costs, the net cost per acre foot of replacement water based on an annual reimbursement of 577 acre feet, is \$457.00.

This per acre foot cost is based on the following calculation. By way of background, SCWC purchases its replacement water through the West Basin Municipal Water District (West Basin). West Basin is a Metropolitan Water District of Southern California (MWD) member agency that wholesales MWD water to its customers, one of whom is SCWC. SCWC is billed by West Basin monthly.

Laurie Williams, Esq.
August 26, 1999
Page 2

West Basin (really MWD) charges are separated into meter capacity (fixed charge) and quantity charges (commodity charge). The meter capacity charge has remained constant since 1996 at \$70 per cfs. Based on SCWC's average annual purchases from West Basin, the fixed charged pro-rates to approximately \$4.00 per acre foot. The commodity charge is currently at \$528 per acre foot for 1999. Thus, the gross West Basin per acre foot charge is currently \$532. West Basin typically adjusts its rates annually.

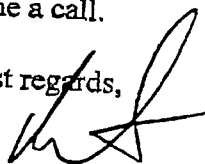
SCWC's current estimated production cost is approximately \$75 per acre foot. These production costs primarily include electricity and chemical costs. The current net cost of replacement water is \$457.00 per acre foot. This cost may change depending on West Basin's water rates and the estimated production costs for SCWC.

Finally, reimbursement payment should be paid directly to SCWC at the following address:

Southern California Water Company
Region Vice President, Region II
1920 West Corporate Water
Anaheim, California 92801

If you have any questions, please give me a call.

Best regards,



ROBERT J. SAPERSTEIN
For HATCH AND PARENT

ROB/gml
214231.1

cc: Denise Kruger

Laurie Williams, Esq.
August 26, 1999
Page 3

Southern California Water Company - Recent Production History - Charnock Wells 9 and 10													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1990	0	.3	0	.2	.1	.3	.1	.2	1.4	7.4	8.4	0	18.4
1991	.4	1.1	.4	4.5	7.7	46.1	45.5	41	41.2	39	30.4	31.5	289
1992	7.7	1.9	.5	.3	1.7	.3	.8	1.4	.8	.7	3.8	0	19.9
1993	0	0	0	0	0	0	0	0	3.9	.6	.5	0	5
1994	.2	2.2	7.5	0	7.5	17.6	24.3	17.1	12.8	9.9	7.7	31.4	138
1995	24.5	26.1	34.3	33.5	34	83.9	18.3	61.3	78.5	59.8	59.4	63.1	577
1996	75.3	47.2	58.6	54	56.3	54	113.3	55.7	68.1	7.9	.3	0	591

ATTACHMENT D

Attachment D

Unilateral Order for Participation and Cooperation in Water Replacement

EPA Docket No. RCRA-7003-09-2000-0002 (March 9, 2000)

Respondents' Source Sites and Responsible Parties List*

- | | |
|---|--|
| 1. PRP Site No. 1
Super Petrol Fuels
Former Exxon #7-9477
11284 Venice Boulevard
Culver City, CA | Responsible Party:
Exxon |
| 2. PRP Site No. 4
AM/PM
Arco #1246
11181 Washington Boulevard
Culver City, CA | Responsible Party:
Arco |
| 3. PRP Site No. 5
Chevron #9-2894
11197 Washington Place
Culver City, CA | Responsible Party:
Chevron |
| 4. PRP Site No. 6
Former Conoco/Kayo/Douglas
11198 Washington Place
Culver City, CA | Responsible Parties:
Conoco, Kayo, Douglas |
| 5. PRP Site No. 7
Former Unocal #3016
11203 Washington Place
Culver City, CA | Responsible Party:
Unocal |
| 6. PRP Site No. 8
Mobil #11-FX-5
3800 Sepulveda Boulevard
Culver City, CA | Responsible Party:
Mobil |

Attachment D (Continued)

Unilateral Order for Participation and Cooperation in Water Replacement

EPA Docket No. RCRA-7003-09-2000-0002 (March 9, 2000)

Respondents' Source Sites and Responsible Parties List

- | | |
|---|---|
| <p>7. PRP Site No. 10
Chevron
3775 Sepulveda Boulevard
Los Angeles, CA</p> | <p>Responsible Party:
Chevron</p> |
| <p>8. PRP Site No. 16
Tosco
Unocal #4357
11280 National Boulevard
Los Angeles, CA</p> | <p>Responsible Party:
Tosco</p> |
| <p>9. PRP Site No. 23
Thrifty Oil #247
Former Chevron #9-0392
3505 Sepulveda Boulevard
Los Angeles</p> | <p>Responsible Parties:
Thrifty, Chevron</p> |
| <p>10. PRP Site No. 30
Great West Car Wash
11166 Venice Boulevard
Los Angeles, CA</p> | <p>Responsible Parties:
Kazuho Nishida, HLW</p> |